

**IDIOT'S
GUIDES**
AS EASY AS IT GETS!

Drawing



50 essential, progressively
more challenging drawing
projects

Easy-to-follow steps use
color to instruct

Simple tools, techniques,
and concepts to get you
started fast

David Williams

No one likes a know-it-all. Most of us realize there's no such thing—how could there be? The world is far too complicated for someone to understand *everything* there is to know. So when you come across a know-it-all, you smile to yourself as they ramble on because you know better.

You understand that the quest for knowledge is a never-ending one, and you're okay with that. You have no desire to know everything, just the *next* thing. You know what you don't know, you're confident enough to admit it, and you're motivated to do something about it.

At *Idiot's Guides*, we, too, know what we don't know, and we make it our business to find out. We find really smart people who are experts in their fields and then we roll up our sleeves and get to work, asking lots of questions and thinking long and hard about how best to pass along their knowledge to you in the easiest, most-accessible way possible.

After all, that's our promise—to make whatever you want to learn “As Easy as It Gets.” That means giving you a well-organized design that seamlessly and effortlessly guides you from page to page, topic to topic. It means controlling the pace you're asked to absorb new information—not too much at once but just what you need to know right now. It means giving you a clear progression from easy to more difficult. It means giving you more instructional steps wherever necessary to really explain the details. And it means giving you fewer words and more illustrations wherever it's better to show rather than tell.

So here you are, at the start of something new. The next chapter in your quest. It can be an intimidating place to be, but you've been here before and so have we. Clear your mind and turn the page. By the end of this book, you won't be a know-it-all, but your world will be a little less complicated than it was before. And we'll be sure your journey is as easy as it gets.

A handwritten signature in black ink that reads "Mike Sanders". The signature is written in a cursive, flowing style with a large, stylized "M" and "S".

Mike Sanders
Publisher, *Idiot's Guides*

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Drawing

by David Williams



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For Stella, Michael, Peg, and Pop.



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Introduction

A drawing begins with imagination and a desire to reproduce on paper the way you, the artist, perceive objects. It reveals one's fascination with arranging lines and tones into an illusion. Drawing can be a pastime, a way to relax, or a great workout. Because the tools needed for drawing are few and easy to transport, it can be done in a café, in a museum, out in nature, or even standing at a bus stop.

This book explains how to set up a simple home studio and get started on the path to creating some great sketches. As you complete the lessons in this book, you'll become more aware of the mechanics of observation and drawing. Vital to the drawing process is the way parts of an image relate to each other to create a whole. Drawings are composed of lines and shading, and also relationships of shapes, tone, and proportion. The artist chooses what is relevant to explain the visual idea and edits out the rest. Good drawings use the least effort to say the most.

Learning to draw is strength and endurance training for the mind. Lesson by lesson, you'll improve your ability to recognize more relationships of size and shape and learn ways to guide the pencil to create clear and realistic drawings. Many of the drawings involve a few measurements, but soon you'll be on your way to drawing without a ruler through observation and measuring with a pencil to compare dimensions.

How to Use This Book

The first section of the book describes the basic tools, materials, and techniques you will use to create all the drawings in the following lesson projects. Fifty drawing lessons are organized into five difficulty levels to present a logical progression from the most basic to intermediate to advanced drawing skills.

If you haven't studied the basics of perspective and shading, or you consider yourself a beginner, you'll want to start at Level 1 to learn the fundamental skills and concepts that will prepare you for the more advanced projects. If you've already studied the basics of drawing, you'll probably do the beginning with Level 2, or even skipping to Level 3 to try drawings as you please. Levels 4 and 5 require an understanding of shading and line drawing that comes through much practice.

Each lesson in the book includes an advanced step in which the drawing is embellished and other creative ideas are suggested. You can take the lesson even further and test your understanding of the techniques learned by composing your own drawing of the subject matter. Each lesson also presents a new concept you can add to your resources to complete future drawing projects. By the end of the book, you will have learned the concepts and techniques to work your way through any problem.

As you progress through the lessons, you will see that drawing is an expression of the hand, eyes, and mind, and requires training them to work together to feel and respond to shapes and tones. As with any training, it's important to proceed slowly through the beginning lessons in order to fully comprehend the instructions. Read through all the steps before you put pencil to paper to get the general idea of how the image takes shape. As you draw, notice your grip on the pencil, and relax it if your hand feels strained. Finally, remember that mastery comes gradually, through perseverance. As much as you can, enjoy all the steps that lead to it.

Acknowledgments

To wordsmiths and editors Lori Cates Hand and John Etchison goes credit for their help in creating a concise text. Thanks also to designer Rebecca Batchelor for crafting pages that are uncluttered, balanced, and user-friendly. Finally, my gratitude goes to Phil Miller and Bill Melvin, my high school art teachers. May your passion for art and compassion for the student live in these lessons.

the

basics

Drawing is an expressive activity, whether you draw from imagination or from life. There are many choices you can make before you even put pencil to paper that will ensure better results. It's important to know which tools are effective and how to use them. Your eyes, mind, and hand are your primary tools; however, you need to know about pencil types, erasers, paper, and a few other things that make drawing easier.

Drawing relies heavily on the eyes and mind to recognize shapes and sizes. The artist is aware of the structure and appearance of an object apart from its function in life. When the artist draws, a cup isn't a vessel for holding fluids. A cup is a vertically oriented cylinder with a pattern of light and dark areas. Drawing while you observe an object actually helps you look at things in an active way and prepares you for the task.

The secondary tools of drawing are basic and relatively cheap compared to sports equipment, but they need to be the best quality you can afford.

setting up your drawing area

Before you begin drawing, you should set up a place where you will draw. This area should have enough space, sufficient light, and an optimal setup. The following sections go over the essential elements to consider when setting up your drawing area.

Lighting



It's important to have enough light to easily see faint measuring marks and subtle transitions of tones. I draw by the light of six 23-watt compact fluorescent lamp (CFL) bulbs, two of them directed at the drawing surface from about 5 feet (1.5m) above and to the left, opposite my drawing hand. The other four are directed at the wall behind and to the right of the desk to create a softer, bounced light. An alternative lighting solution is a drafting light fixture with a flexible arm that can be clamped to a drawing table and its light directed from a few feet away.

Drawing Support

You will need a smooth and solid surface where the paper rests while you draw. Position it so the paper is at about a 90-degree angle to your line of sight.

A **elbow board** is a thick piece of compressed wood particles that has a smooth surface, a handle for transporting, and large clips for attaching pads of paper. It's mainly for use outside or indoors leaned against the edge of a table with the bottom edge resting on your legs. More expensive, but well worth the cost, is a drawing desk with a smooth surface that can be adjusted to many angles.

Here are examples of three very different drawing workspaces. The first is an artist standing with a sketchpad, as if walking in nature. The second shows an impromptu drawing session using a portable fold board. The third is a more formal, dedicated studio setup for drawing.

Paper

Your drawing space includes the piece of paper and the space you draw on and in. You should choose it carefully because it's the material that records your lines and shading. Cheap copy paper is acceptable for quick drawings, but the thinness makes it easier to damage when shading and erasing and usually better results can be expected with a better paper. Art papers are thicker with balanced pH to ensure they don't yellow over time.

Paper drawing surfaces are manufactured in thicknesses ranging from very thin tracing paper to 5-ply (layers pressed together) Bristol board. *Printer paper*, *copier paper*, *sketch paper*, *drawing paper*, and *Bristol* are four surfaces ranging from good to great. Each paper has a unique texture, or "tooth," so it's worth trying all kinds, eventually to find one that best fits your drawing style. Bristol paper that is about 96 lb. (260gms), with a slightly textured surface, is heavy enough to withstand erasing and intense shading pressure.

Translucent marker paper, *layout paper*, or *tracing paper* can be laid over a preliminary drawing to create an *overlay* where the under drawing can be seen through the overlay and is traced and improved upon. These papers usually smear more easily than regular drawing paper.



standing



impromptu
studio



formal studio

tools you will need

Once you have your drawing area set up, you can gather your tools. This book focuses on pencil drawing and some pen drawing in Levels 4 and 5, so the tools needed are minimal. Here are my recommendations.



Pencils

Graphite is combined with clay to make what is called the “lead” of a drawing pencil. Adding more clay to the graphite makes a lead that produces lighter and lighter marks and determines its *grade*.

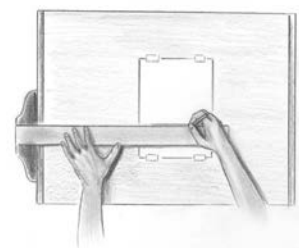
B (black) grades are better for shading and sketching. If the pencil is sharp and you apply less pressure, a B pencil can make a light line similar to the H (hard) grades. I suggest using mainly 4B and 6B for the lessons in this book. They create subtle light-to-dark gradations and erase well without digging into the paper. Sometimes the harder 2B and HB grades will be helpful to create lighter toned areas, and 8B works for the very darkest tones.



Rulers and Straightedges

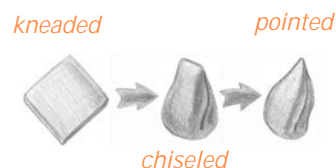
A ruler is helpful for measuring, drawing guidelines, and creating grids. A heavy piece of paper or board with a straightedge is a temporary *x*. I suggest using an 18-inch metal ruler that includes a 45-centimeter measure. These often have a cork backing. This keeps it from slipping or the edge from touching the paper (which is necessary if you ever use it with an ink pen).

Commonly used for traditional drafting, a T square has a straightedge, or blade, with a shorter perpendicular head (the top of the T) that rests against a table or board and keeps the blade square at a 90-degree angle.

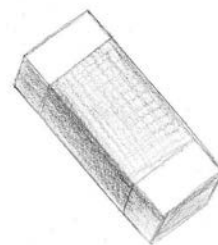


Erasers

The *kneaded eraser* is rubbed across or pressed on a drawing page to take away large or small dark-to-light tone with very little residue. Usually an eraser is regarded as a tool for removing mistakes, but for the artist, a kneaded eraser can be formed to lift off pale shapes within dark tone areas by dry adhesion. The kneaded eraser is a soft rubber material that can be shaped into a small point, dot, blob, or line and can be pressed into, dragged across, or rubbed over the paper. To erase a dark area, press the eraser onto the paper to take off a majority of the graphite. When the outer surface becomes shiny dark, pull and fold the eraser to create a new clean area.



The *white vinyl eraser* is rubbed over or dragged across the drawing surface for erasing light lines and tone, but will smear dark areas. It can be cut into shapes with a craft knife to create smaller erasing tips and edges. These also are manufactured to fit into the ends of mechanical pencils or an eraser tube, or an *electric eraser* that rotates at high speeds.



The *art gum eraser* is a tan block that crumbles as it gently takes off lines and larger areas of tone. It's not as effective for erasing small areas adjacent to other shading.



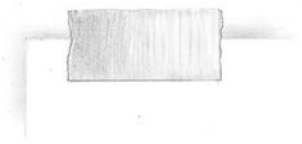
Erasing roughs up the paper's surface and can leave dust and imbedded eraser particles. Brush off any remaining residue with a wide, soft brush.





Blending Tools

A *blending stump* is a pressed paper stick with pointed ends that can be rubbed across tone. The *tortillon* is a rolled paper blending stick with one pointed end. Chamois leather can also be used on wider areas, as can a paper towel that has been rolled or folded. The side of a small finger that is clean can also be used.



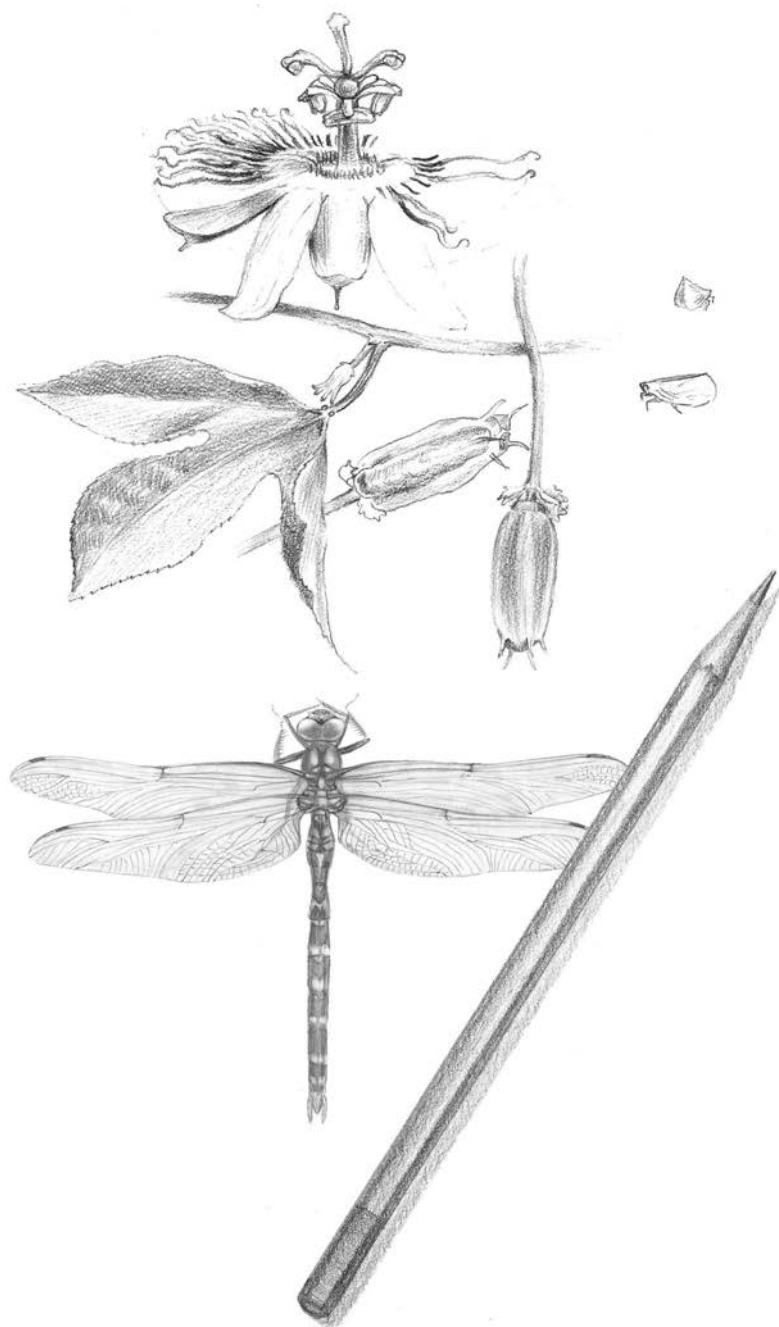
Tape

Drafting tape is used to hold down a loose page to the drawing surface and is less sticky than regular masking tape to avoid tearing the paper.



Pencil Sharpeners

A sharp pencil tip with about 5/16 inch (.75cm) of exposed lead is helpful to achieve a range of effects from tip-end detail to shading with the side. There are many inexpensive handheld designs with openings for various pencil diameters and plastic cases that catch the shavings. Electric sharpeners are convenient for the continual sharpening needed when you're doing lots of shading. However, they are also noisy and can take off more length than you need, although some models are designed to stop when the pencil is sharp.



Basic List of Materials

- *Bristol pad: 9 x 12 in. (22.9 x 30.5cm)/96 lb. (260gsm)*
- *Translucent marker paper: 9 x 12 in. (22.9 x 30.5cm/ A4)/13.5 lb. [70gsm]*
- *HB, 2B, 4B, 6B, and 8B graphite drawing pencils*
- *.5mm drawing pen*
- *18-inch (50cm) metal ruler*
- *18-inch (50cm) T square*
- *Kneaded rubber eraser*
- *A few smaller tortillions or blending stumps*
- *Pencil sharpener (electric or manual)*

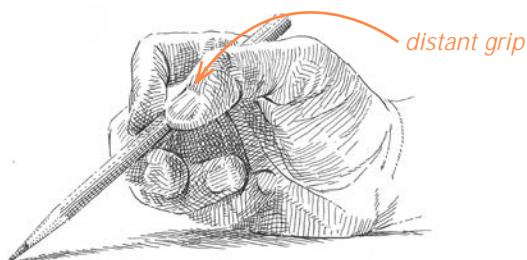
techniques

The way you hold the pencil when you draw will influence the texture of the lines and shading. Good grip can also relieve hand fatigue and keep you free from chronic wrist and joint pain. Hold the pencil for light to medium dark marks with only enough pressure to keep it from slipping between your fingers. The habit of gripping the pencil too tightly can develop from forcing the pencil when the tip has lost its edge—so remember to keep the tip sharp!

Grips

The first thing to do to improve your drawing grip is to hold the pencil about $3\frac{1}{2}$ inches (9cm) back from the tip and draw with the pencil at about a 30-degree angle. This *basic grip* will position the tip to draw both straighter lines and shade more evenly. This grip will also help to keep your drawing hand farther from the drawing and from smudging the work. This grip is best for drawings 9×12 inches (22.9×30.5 cm) or smaller and is the basic grip for most drawings.

The *distant grip* is best for making soft, light lines and helps the hand pivot for a greater arcing range. Hold the pencil about 3 to 4 inches (7.5cm) back from the tip with the barrel end near or against your palm.



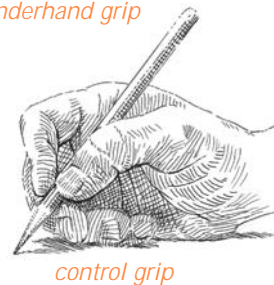
Pivoting most grips at the heel of the hand will help improve control, but there are times you will need a more distant pivot, such as from the elbow or shoulder. Gripping the pencil with your hand over the barrel (*overhand grip*) and pivoting at the heel of your hand will help when creating short, textural marks that require more pressure.



For very loose, expressive lines, the pencil is gripped with the palm facing up. This is called an *underhand grip*. You can make arcing lines this way while pivoting on the knuckles of the small digits.



For the *control grip*, hold the pencil at a steep angle and closer to the tip to create short, sharp, or claw-shaped lines (such as for eyelashes).

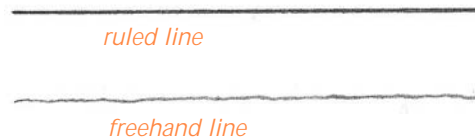


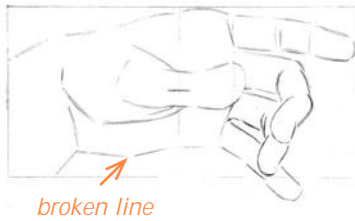
Types of Lines

Lines drawn with the side of the pencil tip have a softness and variation in thickness. Lifting the pencil tip away from the page at the end of a stroke creates a tapering end that has a dynamic quality.

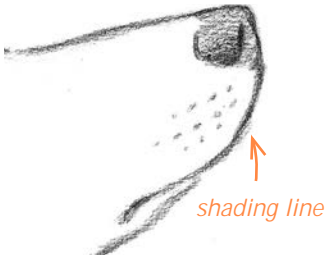
Factors that change the look of a penciled line are pressure, speed of the stroke, pencil angle, grip, sharpness of the pencil tip, pencil grade, and the drawing surface. Even one's emotional state is recorded by a line.

The *ruled line* is exact and useful to draw level, vertical, or precisely angled lines and where a clean edge is required. These lines stand out in a distracting way when isolated in a drawing made mostly with *freehand lines* without a ruler, but are necessary to draw an accurate perspective construction.





The *broken line* is used at the beginning stage of a drawing to rough in the contour without details. It's made of fairly straight lines that simplify a complex shape into sides with small gaps where turns occur. It's much easier to incorporate or change a broken line than a solid one where care has been taken to draw details.



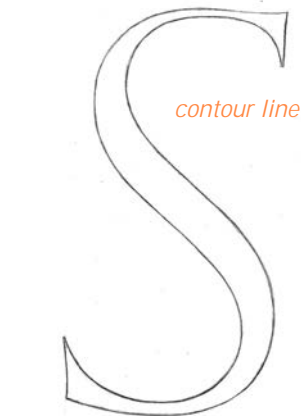
Often a light, soft line is needed to feel the way to an accurate contour. The *shading line* is made with multiple overlapping light strokes that avoid heaviness.



The *gesture line* is used mainly while making gesture drawings that quickly capture a live subject's pose. It has varying widths and flows with a graceful energy.



Unlike other lines that are relatively short strokes, the *continuous line* has few breaks while it records contours and cross contours. It has a fairly consistent width and is best done with a pen where sharpening is not necessary, or with an HB pencil that is harder and requires less sharpening.



The *contour line* has a similar look to the continuous line and describes only the edges of a subject.

Construction lines are made at the beginning of a drawing for marking positions, angles, and measurements. They include tick marks, midpoints, roughing-in lines, points, radii, and reference lines.



The *varied line* changes volume and thickness by you turning the pencil tip and changing pressure while making the line. This line is graceful and can be used to intensify 3D illusion when the contour is emphasized.

varied lines



Shading

Back-and-forth shading is done with the side of the pencil tip and creates even tone without the texture of individual strokes. It can be layered over previous lined shading to soften and merge tones together.

Stroke shading is done with the tip of the pencil, creating individual strokes that are organized in rows or groups that, en masse, are seen as even tone.

Crosshatching is made with the tip of the pencil by layering rows of short marks at different angles. The result is darker and darker tone with each layer, as well as square-, diamond-, and triangle-shaped texture.

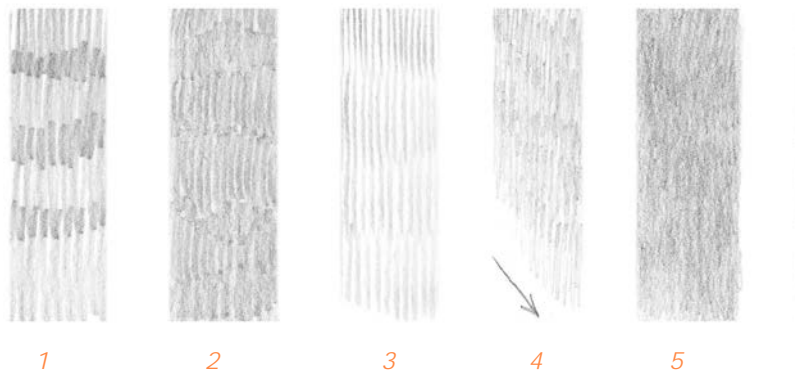
Make *dark tones* in layers by first blocking in the area with even, medium dark tone with the side of the pencil tip, with strokes going in the same direction. Then turn the page and do the same in a different direction. For very dark tones, add a third layer with more pressure and finish with a fourth, softer blending layer using the tip of the pencil to blend and fill in any remaining white patches of paper that are still showing through.

When the shading hand touches previously shaded areas, it will transfer smudges from the palm. You can avoid this by laying a sheet of paper (a cover sheet) over the area where you rest your

hand while working. You can also use long pencils and grip them farther back so you can rest your hand outside the image area. Sometimes, merely turning the drawing will provide a place in the margin for your hand. As you gain skill, you will be able to shade without resting your hand as it hovers over the page. Some smudges can be cleaned up at the completion of the drawing with a kneaded eraser.

Create *light tones* with the side of the pencil tip, gripping the pencil farther back to lighten the pressure. You can also create light tones with the tip of the pencil and using a 2B, B, or H grade of hardness. Harder grades can dig into the paper and the grooves will show up if dark tones are laid over them.

A *gradation* is tone that softly transitions from light to dark or the reverse. To create a gradation, lay in the lightest tone over the entire area with more pressure applied gradually. But don't create the darkest values yet. After retouching uneven spots, if necessary, go back to the darkest area and darken it more while gradually applying more pressure.

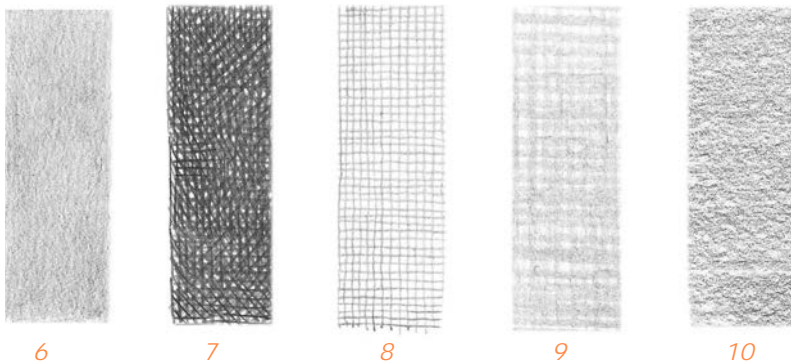


To create very *smooth tones*, use the side of a 4B pencil for shading the area. Then finish it off with a 2B pencil tip at about a 30-degree angle, applying very little pressure to blend the strokes together. A tortillion of rolled paper can be rubbed over the surface to blend the graphite particles, to fill all the white recesses of the paper texture and blend away all the drawing strokes, if desired.

Examples of Shading Techniques

Following are some different shading effects and how they can be achieved.

1. Rows of overlapping parallel lines.
2. Example #1 with the lighter gaps filled in.
3. Careful rows of parallel lines.
4. The distracting horizontal bands in example 3 are avoided by overlapping and diagonal orientation of rows.
5. Overlapping vertical shading.
6. Careful overlapping vertical shading.
7. Dark value created with four dark layers of crosshatching.
8. Delicate crosshatching using the pencil tip.
9. Crosshatching using the side of the pencil tip.
10. Overlapping shading strokes made with the side of the pencil tip.



construction

Construction is the beginning stage of a drawing where sizes and placement of main shapes are marked on the page. These marks include the following:

Level line (horizon, table edge, eyes)

The axis (head, body)

Lines of convergence (road, building)

Basic forms (cube, cylinder, cone, sphere)

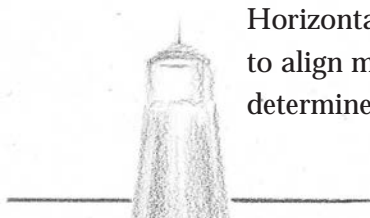
Dimensions

Alignment

Because construction lines and marks are used to plan the drawing, these marks are made as light as possible so that they are easy to erase or incorporate into shading. Grip the pencil about 3 inches (7.5cm) back from the tip and draw with the side of the pencil tip to create these soft lines.

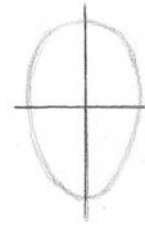
Level Lines

Horizontal and vertical level lines can be drawn to create guidelines to align multiple parts of a drawing or can be merely imagined to determine whether one part is aligned with another.



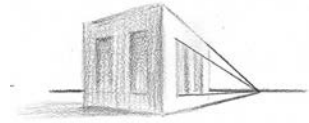
Axis

The axis divides a 2D shape in half or runs the center of a 3D shape. It can help determine the angle of the object, its center, and its length.



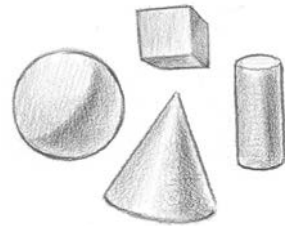
Lines of Convergence

Lines of convergence help determine the angles of edges as they converge at a vanishing point. These are used in one-point and two-point perspective drawings.



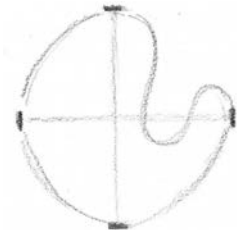
Basic Shapes

The 2D basic shapes are the square, circle, and triangle. The 3D basic shapes are the cube, sphere, cone, and cylinder. These are drawn lightly to determine the orientation of an object or parts of an object in a drawing.



Dimensions

Small marks called tick marks indicate the basic height, width, and length placement of a part of a drawing.



Alignment

These lines are observed to place and orient an object that is level, plumb, or aligned diagonally with another.



the

projects

Following are 50 lesson projects that help you learn the techniques and concepts of drawing while creating satisfying and interesting artworks. The lessons are grouped by difficulty and become more challenging as you progress through the levels:

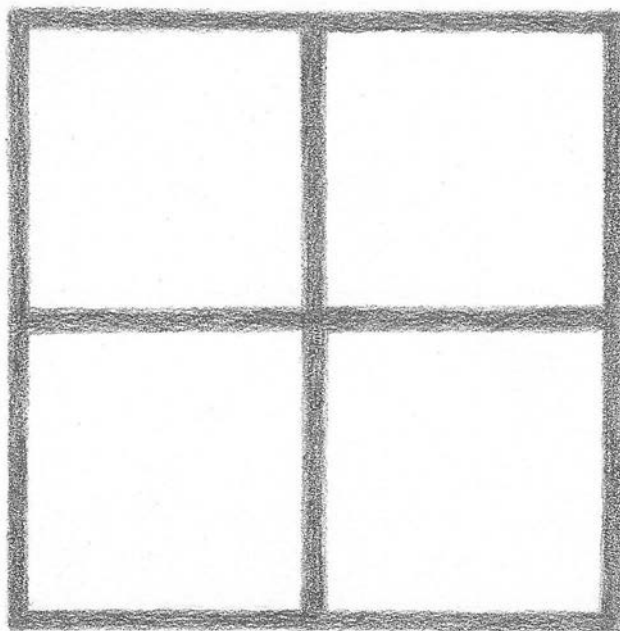
- **Level 1** introduces the basics of making shapes, how to hold the pencil, and how to draw straight and curved lines. It also introduces how to construct a drawing so all the parts fit together well.
- **Level 2** shows more complex arrangements of the basics. It introduces the human head and how to begin to produce the illusion of texture.
- **Level 3** introduces some full-page compositions. Building on the understanding of human features from level 2, you will apply naturalistic illusion of the anatomy of the head.
- **Level 4** provides subject matter from still life to animal and human. You will investigate how to create realistic textures.
- **Level 5** provides challenging images that build on knowledge of the earlier levels' concepts and prepares you to create satisfying and professional images of your own.

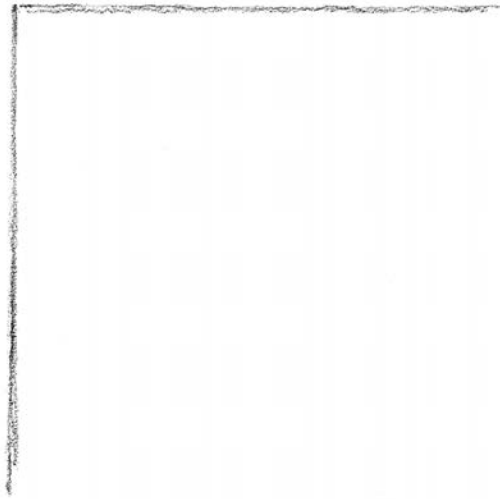
how to
draw a

window

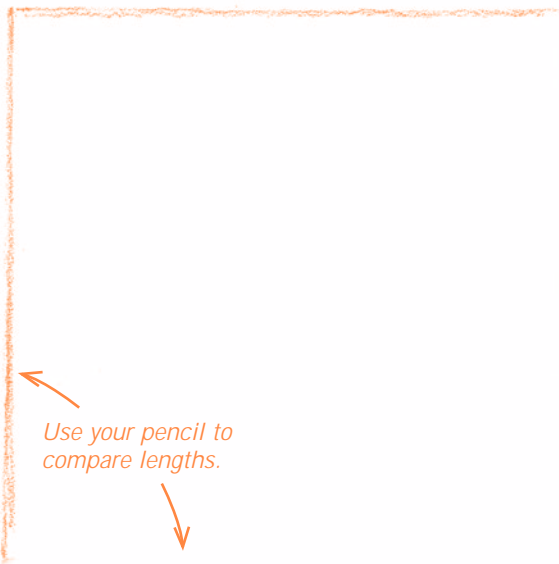
Steps: 5 Dif culty: ☒ ☐ ☐ ☐ ☐

Lines that are parallel to the edges of a page create the feeling of stability in a drawing. As you draw the vertical and horizontal lines of this window, remain aware of the entire page so that you can draw straighter lines that relate to the page.





- 1 Begin the main square of the window by drawing a horizontal top line with a sharp 4B pencil. Draw the line to be parallel to the edge of the paper by glancing at it and then back to the line while moving the pencil. Draw the left side of the square while using the left edge of the paper as a visual reference.



- 2 Complete the rest of the sides of the square. Check that the sides are the same length by laying your pencil alongside a line with the pencil's tip at one end of the line and then grasping the pencil at the other end of the line. Continue to hold the pencil and turn the paper to compare this measurement to the other sides.

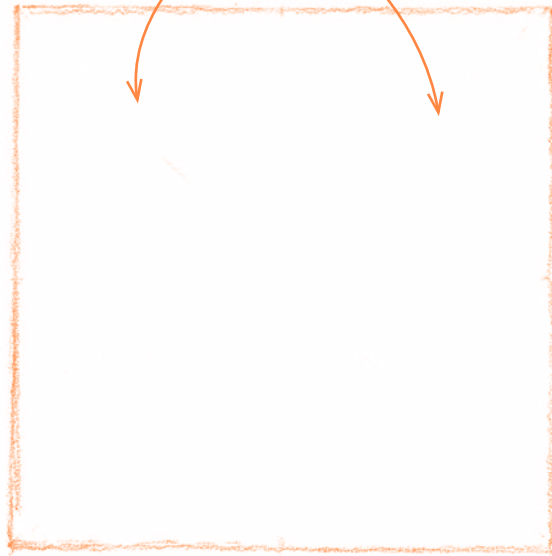
CONCEPT

Comparative measurements are taken by placing the tip of the pencil at one end of a line and then pinching the pencil at the other end.

A square's four corners should each be 90-degree angles. Check this by drawing light, dashed, diagonal lines connecting opposite corners. If the lines are the same length, the angles are true.

3

Use diagonals to find the center of a square. Broken lines are easier to erase or revise.



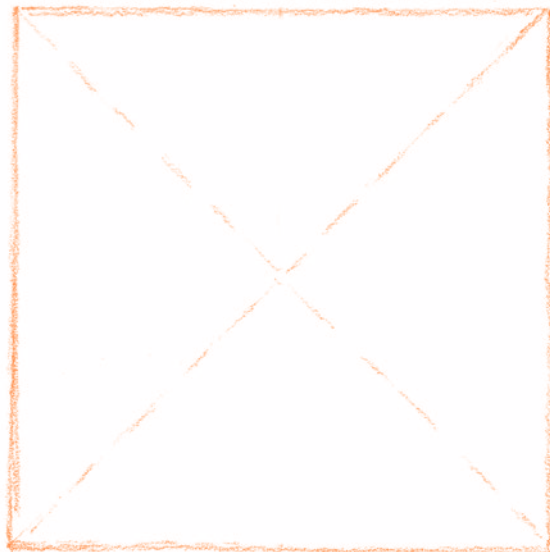
CONCEPT

Be aware of the page as you draw. Its height and width, edges, and center can be used as visual references to position and draw lines.

Where the diagonals cross is the center of the square. Draw a horizontal and a vertical line through this point.

4

Light, dashed or "broken" lines are visually weaker, and so they are less distracting and easy to change or erase. Use them whenever you guess at the placement of a line or when the line will be erased. Erase the diagonal lines and then redraw the outer square and interior lines to have an even darkness.

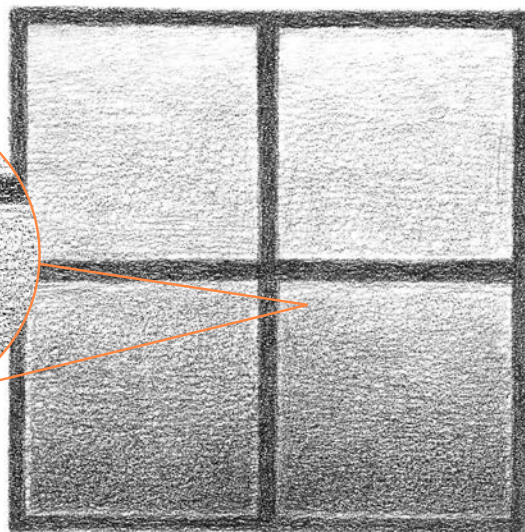
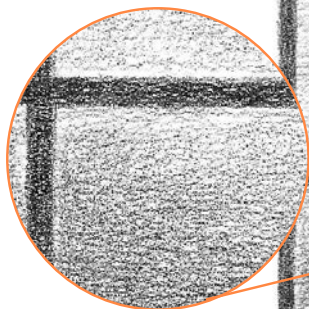


Keep the outlined edges
light for a soft, clean look.



- 5 With light lines and the tip of a sharp pencil, draw a square around the main square and draw guidelines on either side of the interior lines. Shade in the area with short lines that overlap to create an even tone. Clean up any stray marks with a kneaded eraser by dragging it along the edges.

ADVANCED VARIATION



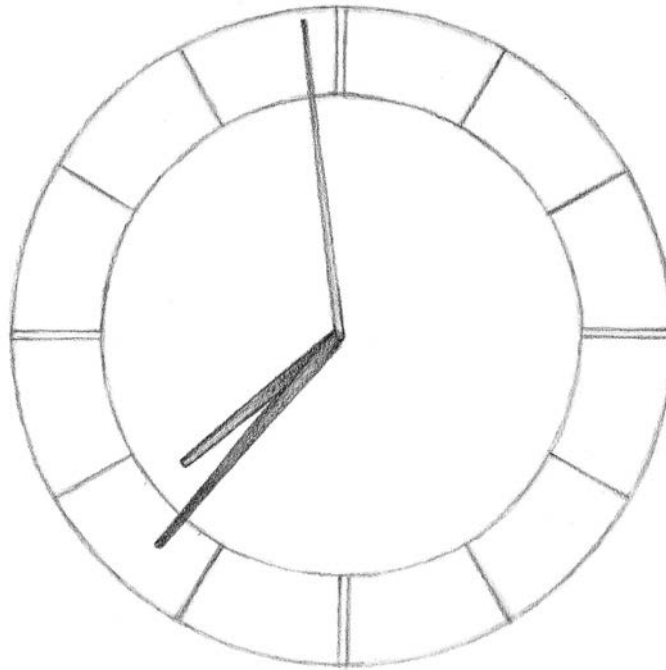
Develop the illusion of atmosphere beyond the window with a gradation. Shade a light, even tone in all the squares with short, overlapping strokes. Then build a darker tone from the bottom panes up that gradually becomes lighter before the horizontal bar. Avoid smearing the shading to create uneven toning. Instead, shade very softly up to dark spots to camouflage them or lightly touch them with a pointed kneaded eraser.

how to
draw a

watch

Steps: 5 Dif culty: ☒ ☐ ☐ ☐ ☐

This drawing of a watch face will get you started drawing circles in stages. The challenge is to draw a round shape that appears balanced. Although using a compass or template would result in a clean curve, circles drawn freehand are softer, blend with the rest of the drawing, and are fun when you get the hang of it.





- 1 Draw a dot with a 4B pencil. Then grip the pencil with your fore finger and thumb about 2 inches (5cm) back from the tip. Mark eight points this distance around the dot.

TECHNIQUE

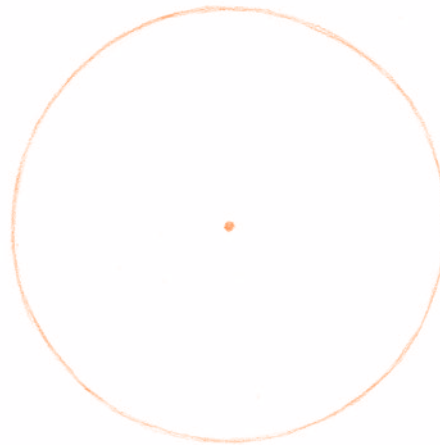
Keep the pencil perpendicular to the line you are drawing. Grip the pencil a few inches (centimeters) back and allow your wrist to bend as you draw.

- 2 Connect the marks with curved lines.

Turn the page a quarter turn and then upside down to find areas that need more refining.

Refine the circle and create another one about a $\frac{1}{2}$ inch (1.25cm) farther out using the same method as the preceding steps.

3

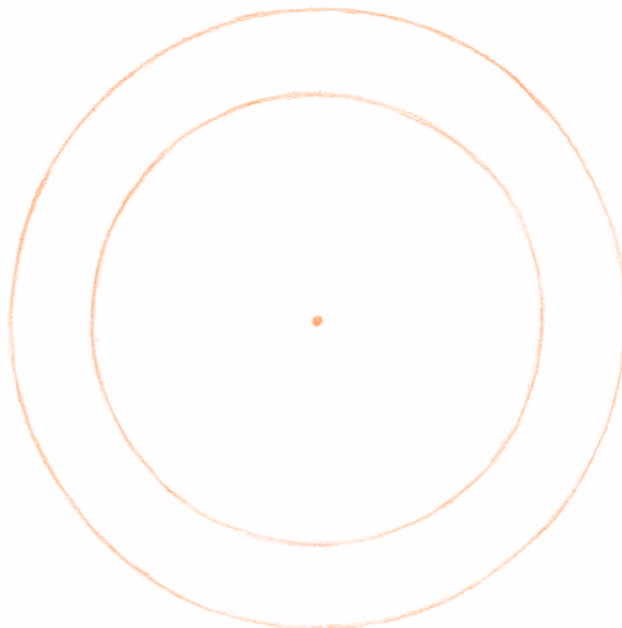


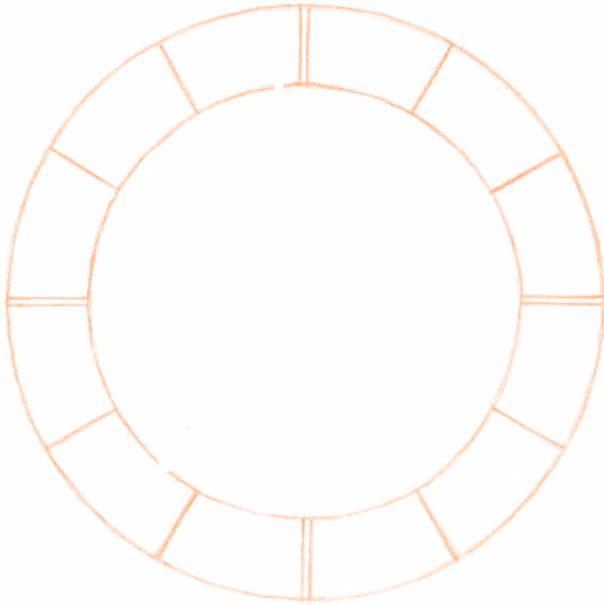
CONCEPT

Freehand drawings are done with the hand and pencil alone and without a template, ruler, or compass. Although they are less precise than technical drawings, they are more lively and natural looking.

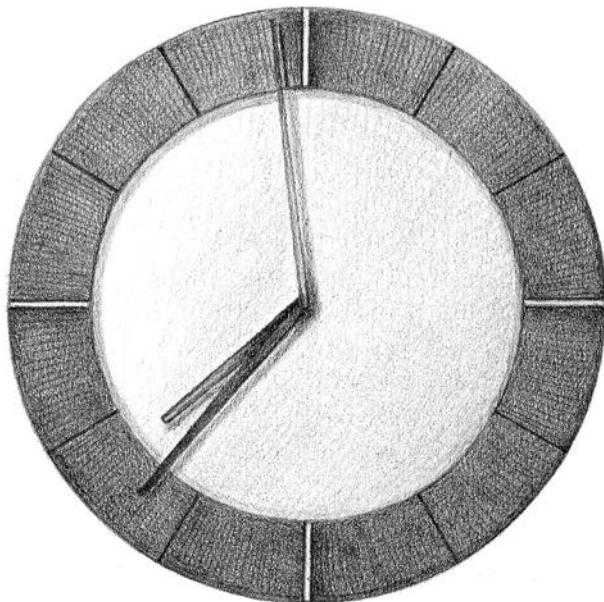
Estimate the positions of twelve, three, six, and nine o'clock in the outer ring and make light marks at these points. Light, dashed construction marks connecting opposite positions should run through the center dot. Estimate the positions of the remaining hour positions using this process.

4





- 5** Position the hour, minute, and second hands at a time that is meaningful to you. Each hand has a different thickness and length.



ADVANCED VARIATION

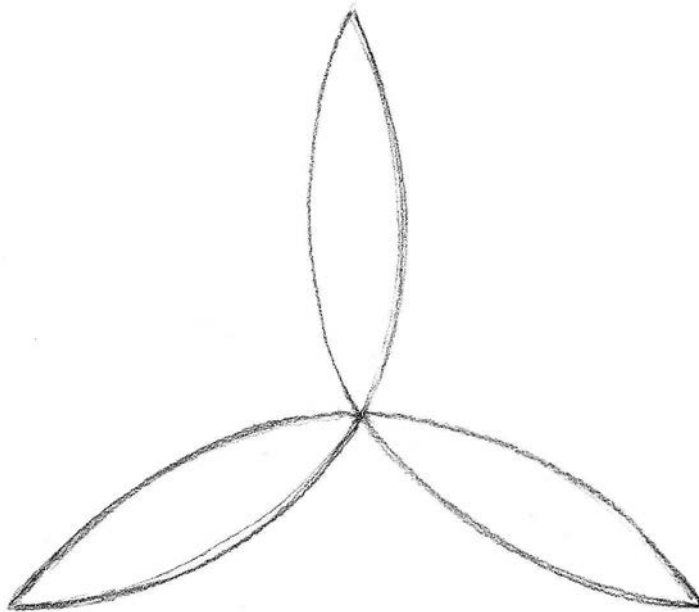
Refine the outer ring with light shading that follows the direction of the ring. Then shade with marks that cross the first ones at a 90-degree angle. Continue shading to create an even tone.

how to
draw a

celtic knot

Steps: 5 Dif culty: ☒ ☐ ☐ ☐ ☐

The equilateral triangle construction for this knot design is a fun challenge and shows how to use construction to determine size and placement of the parts of a complex drawing.





- 1 Draw a horizontal line. Estimate where the center of the line is by letting the pencil tip hover over the spot, comparing the area to the left of it to the area to the right. When you've compared and adjusted, draw a dot on the line at the new center.

- 2 Draw a vertical axis. Draw diagonal lines from the base to the axis, each the same length as the base. Compare the measurements and revise to be the same. Mark the halfway point of the sides with the method from step 1.

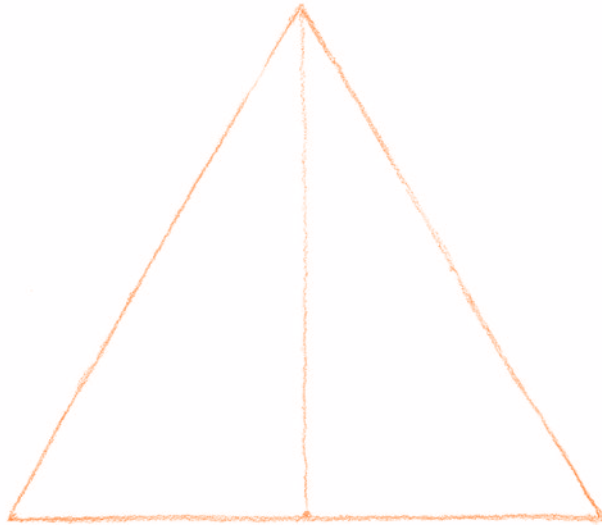


Draw the two remaining axis lines.

3

CONCEPT

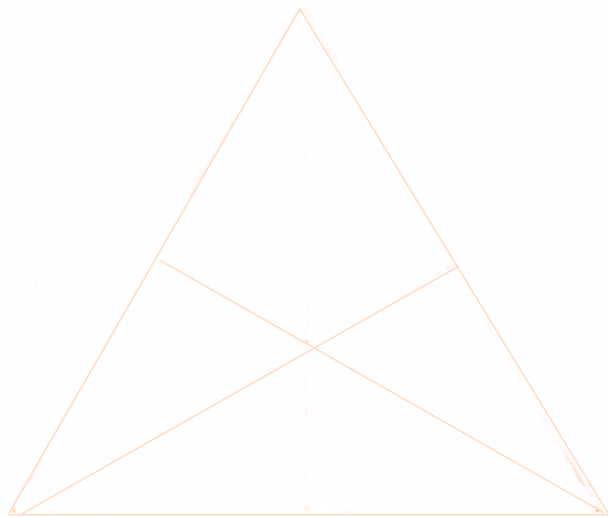
An **axis** is a construction line that marks the center and divides a shape in half.



Lighten all the lines by pressing a kneaded eraser onto them.

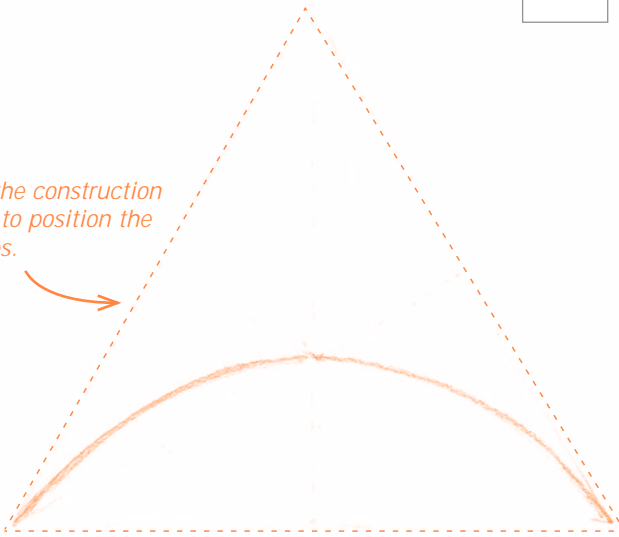
4

Draw a curve that begins at one point of the triangle, intersects the center, and stops at another point.

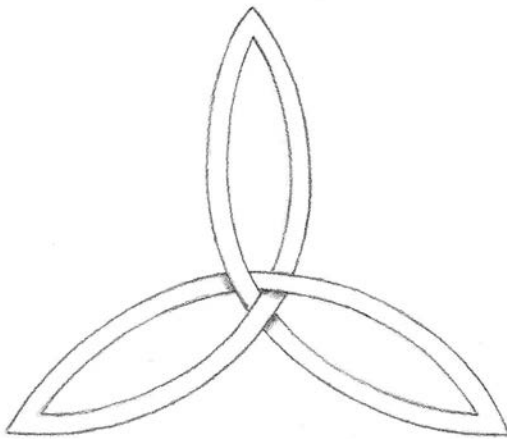




Use the construction lines to position the curves.



- 5** Complete the remaining two curves following the process for step 4. Erase the construction lines with a kneaded eraser and brush away the dust. It's okay to erase some of the curved lines; just redraw them confidently with a sharp pencil.



ADVANCED VARIATION

Draw the outside line of the knot. Erase the center and redraw the parts so they appear to weave over and under as in the finished example. Add some shading at these points to emphasize the effect.

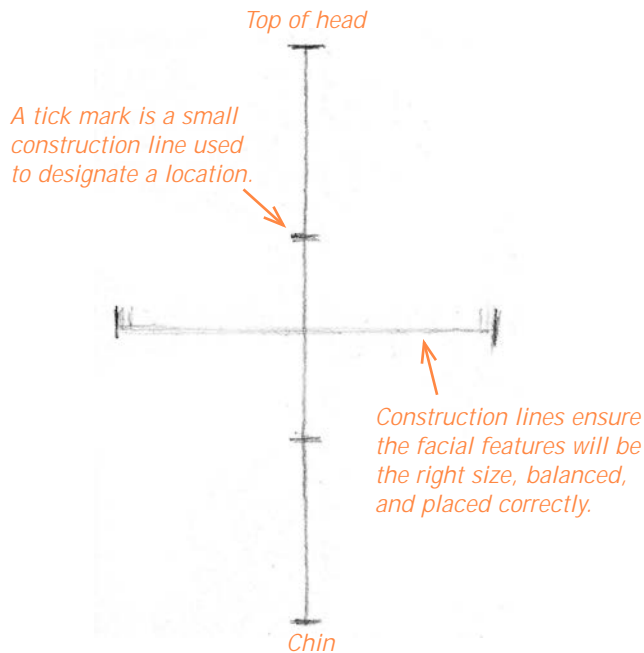
how to
draw a

basic face

Steps: 5 Dif culty: ☒ ☐ ☐ ☐ ☐

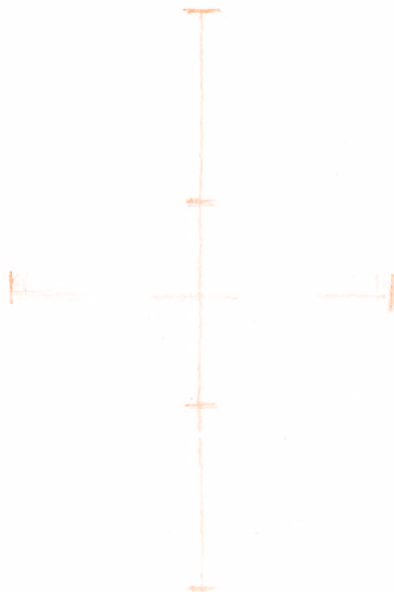
There are few drawing subjects more challenging than the human face, perhaps because it's so familiar, but also for its symmetry and many details. This drawing presents the basic placement of the facial features. You can modify it to draw any human face seen from the front.





- 1 Draw a tick mark for the location of the top of the head and another marking the chin about 4 inches (10cm) apart. Draw a vertical line connecting the tick marks, and then divide it into thirds with two more tick marks.

Draw a horizontal line dividing the vertical one in half. Its width is two of the small vertical sections. A basic face is three sections tall and two wide.



- 2 Divide the horizontal line into four equal parts by drawing two new tick marks. Draw the irises just inside these new marks. Then draw the three angled lines of each of the upper lids.


The nostrils are two curves that meet as a straight line in the center below the lower tick mark on the vertical line. The sides of the nostrils are straight, then curve just under the openings.

Draw the four angled lines of the jaw with a small space in between. The top two begin level with the top of the nostrils and the lower two angle in to the chin. The line of the mouth is level with the small spaces and the ends are in alignment with the inside of the irises.

3

CONCEPT

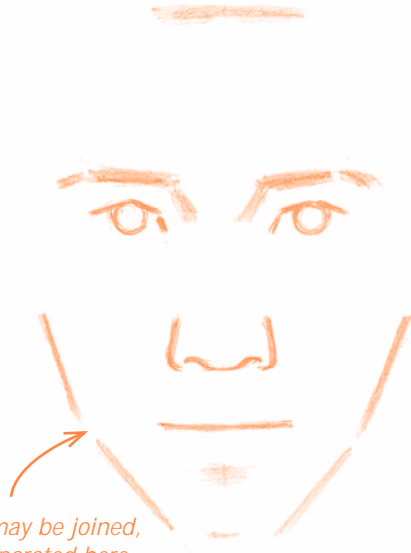
When parts of a drawing subject are in alignment, you can position them better. Items that line up vertically are plumb; those that line up horizontally are level.

The spaces  between the lines emphasize the different angles.

Draw a wide mark for the hairline halfway between the top tick marks of the vertical line. Draw the three soft lines of the eyebrows and upper nose. Very softly shade the depression above the chin.

4





Broken lines may be joined, but are left separated here to emphasize the parts.

- 5 Draw the sides and top of the head, keeping the lines symmetrical. Draw in the ears at either side of the head even with the eyebrows and the bottom of the nose.



ADVANCED VARIATION

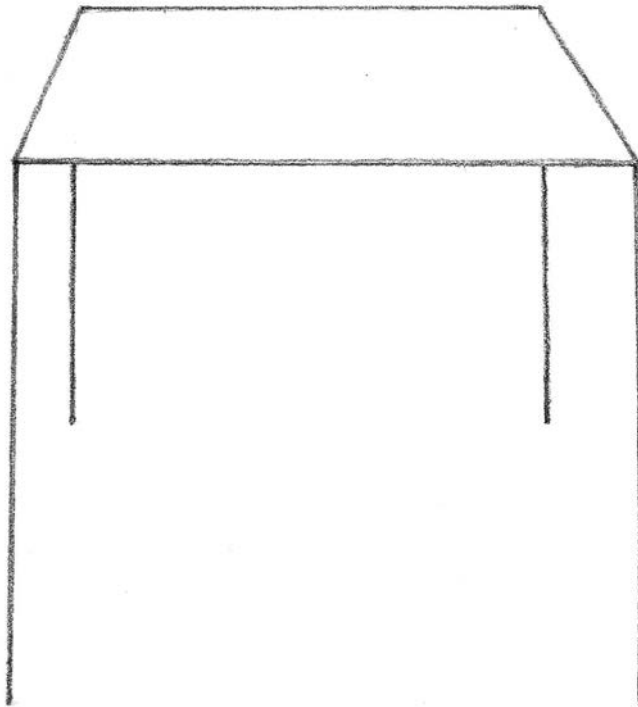
With light, curving shading, join the lines of the chin, jaw, and top of the head. Shade the irises and darken the pupils. Add the lines of the lower eyelids.

how to
draw a

table

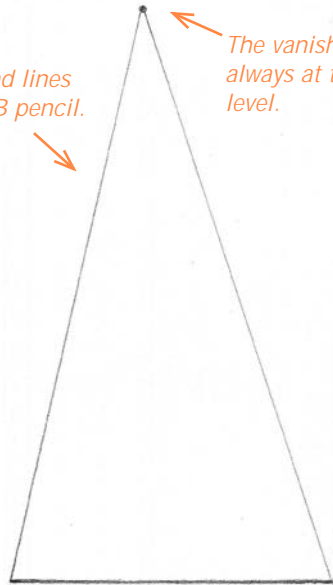
Steps: 5 Dif culty: ☒ ☐ ☐ ☐ ☐

We're used to rectangular tables, but the angles of the edges are usually overlooked. Perspective is a method of using construction lines to determine the angles of parallel edges that seem to gradually become farther from the viewer. Objects with parallel edges and one edge facing the viewer are constructed with one vanishing point.



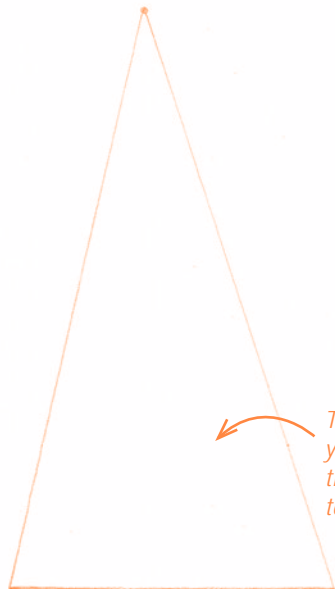


*Draw the dot and lines
lightly with a 4B pencil.*



*The vanishing point is
always at the viewer's eye
level.*

- 1 Draw a dot a few inches from the top of your page and centered. This is the vanishing point for the one-point perspective you will construct. About $6\frac{1}{2}$ inches (16.5cm) below the dot, place your ruler parallel to the bottom of the page and draw a $3\frac{1}{2}$ -inch (9cm) wide line. Then draw two lines that connect the ends of the line to the dot.

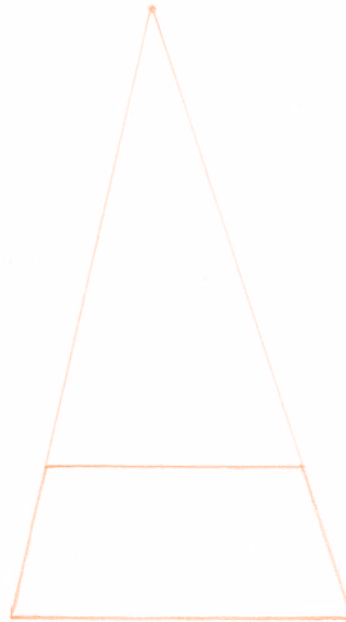


*These lines will help
you determine where
the legs of the table
touch the ground.*

- 2 Draw another line about $1\frac{1}{2}$ inches (3.75cm) above and parallel to the other horizontal line.

Draw the front legs and front edge of the table. The legs are vertical lines that are each 3 inches (8cm) tall. Check that they are parallel to the sides of the page. The front edge of the table connects the tops of the legs and is parallel to the bottom edge of the page.

3

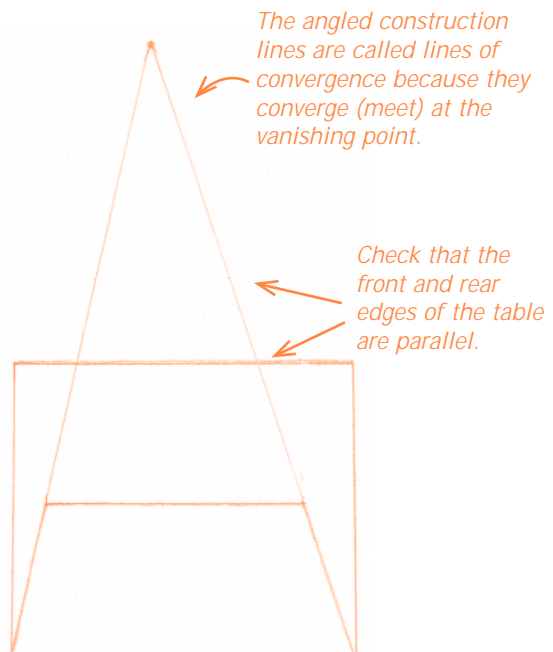


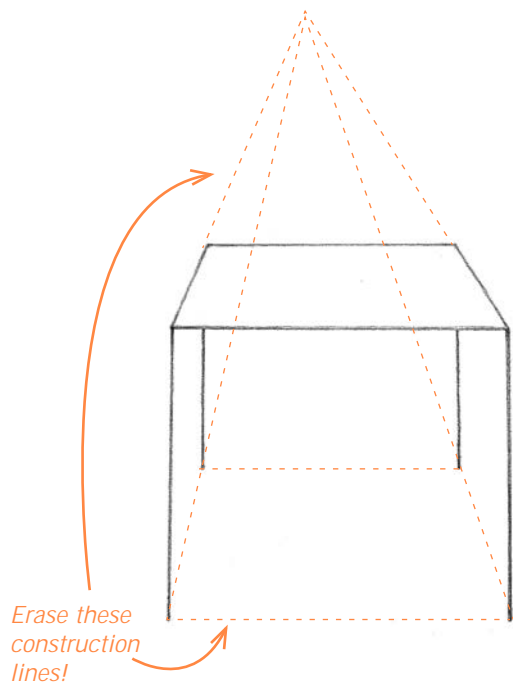
CONCEPT

Construction lines are used to determine the placement of parts of a drawing and are eventually erased or incorporated into the shading.

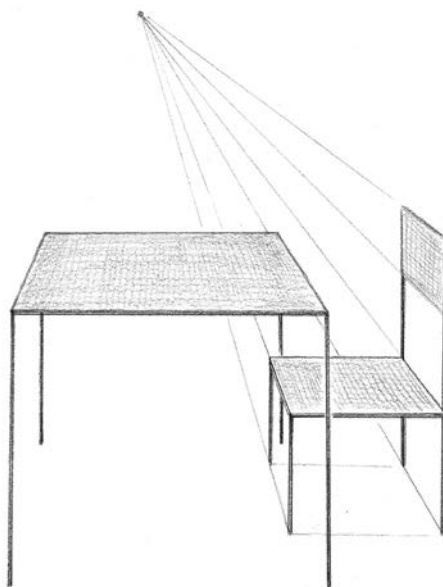
Similar to the angled lines drawn in step 1, draw angled lines from the tops of the front legs to the vanishing point. The rear legs are placed by drawing vertical lines that begin where the second horizontal line touches the lower lines of convergence and end at the upper lines of convergence. The rear edge of the table connects the tops of the rear legs.

4





- 5** Erase the construction lines and refine the lines of the table to look stable and smooth.



ADVANCED VARIATION

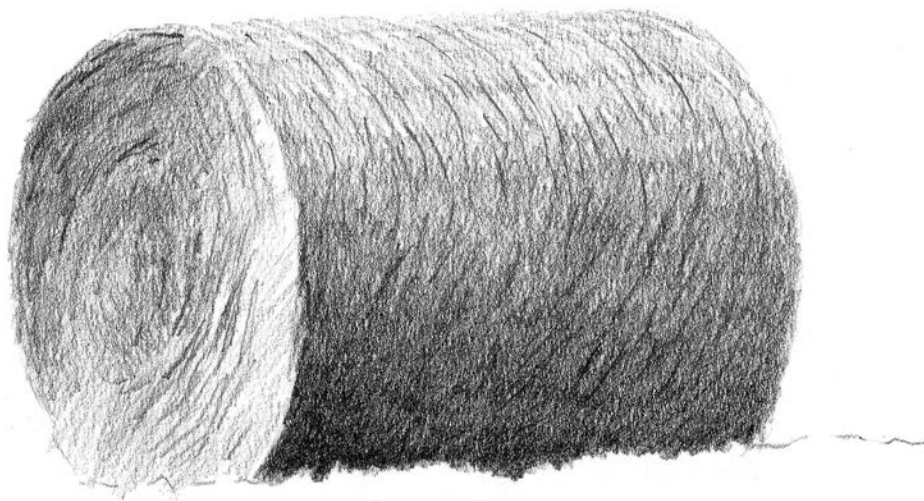
Draw a chair using the same method and vanishing point used to draw the table. Think of the chair as a small table with an upright section. The seat is not as wide as the table, so draw the seat's near and far edges closer together. Add stability to the objects by shading the chair and table surfaces with marks that follow the directions of the parallel edges.

how to
draw a

hay bale

Steps: 5 Dif culty: ☒ ☐ ☐ ☐ ☐

With its cylindrical form and grassy texture, a hay bale presents a unique drawing experience. At the two flat ends, the pattern of the hay slowly spirals inward while the side follows an elliptical curve. Shading marks that follow the surface of the form intensify the 3D illusion.





*Draw the construction
lightly with a 4B pencil.*



- 1 To begin constructing a cylinder, draw the axis. In the case of this hay bale, draw one that is angled slightly upward to the right and about $5\frac{1}{2}$ inches (14cm) long. Draw a tick mark 2 inches (5cm) from the left, dividing what will be the ellipse end and the curved side.

*The ellipse's major axis
crosses the cylinder's
axis at a 90-degree
angle.*

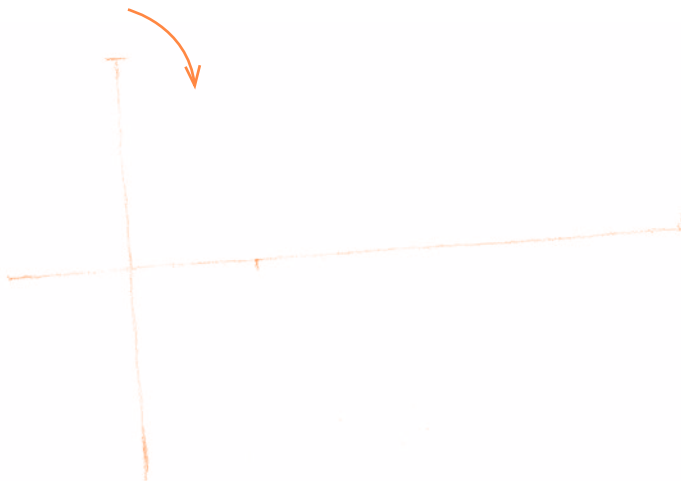


- 2 When a circle is turned at an angle, it becomes an ellipse. Draw the major axis of the ellipse $3\frac{1}{4}$ inches (8.25cm) long at a 90-degree angle to the axis of the cylinder.

The construction lines show that the ellipse will lean to the left. With a broken line, draw the ellipse contour to touch the ends of the construction lines. Draw the sides of the cylinder parallel to its axis and draw the "hidden" ellipse on the right to have the same curve as the right half of the "facing" ellipse.

3

The texture of the broken-line contour will eventually become part of the hay texture.



CONCEPT

Directional shading follows the surface of a form to intensify the illusion of 3D.

Erase the crossing axis lines.

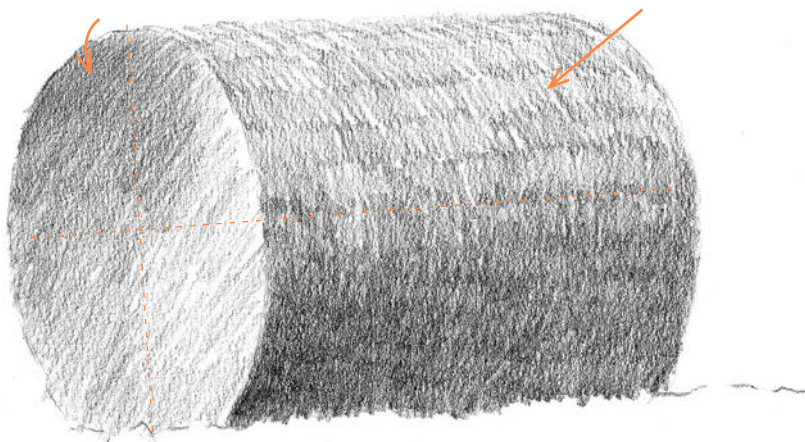
Shade the ellipse with a gradation of medium to pale tone at an angle.

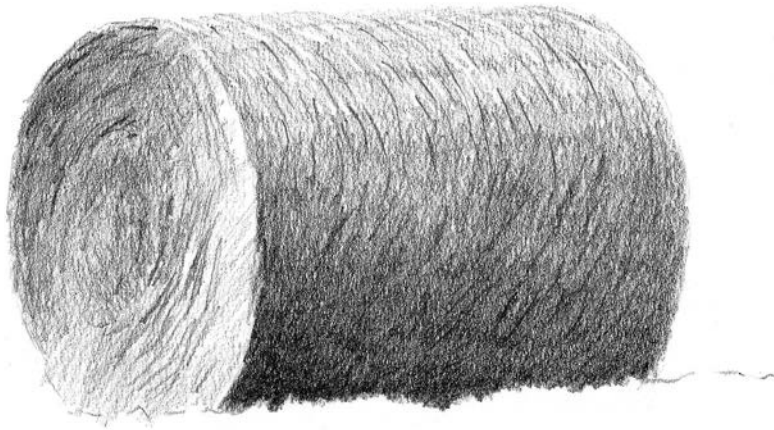
To begin work on the longer side, draw a jagged, broken line that will show the texture of the ground. Then shade upward from that with loose marks in rows that gradually change direction to follow the curving surface.

4

Shading marks that repeat in one direction make a surface look flat.

Shading marks that gradually change direction make a surface look curved.

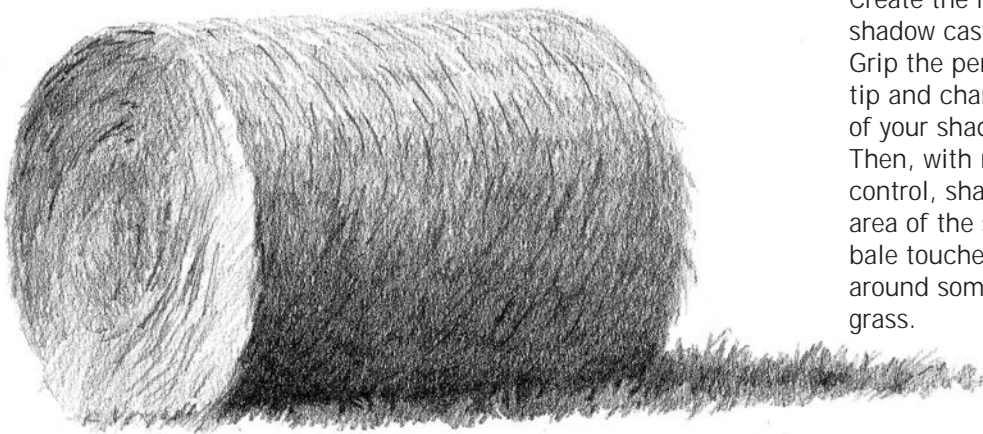




5 Darken the shading at the lower side of the cylinder.

Add darker marks that follow the spiral of the ellipse and follow the curve of the side. Space them apart to give the spiral a more random look.

ADVANCED VARIATION



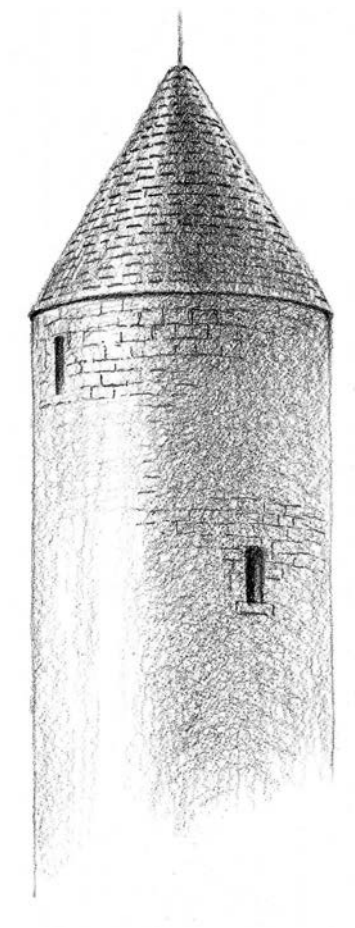
Create the main shape of the shadow cast on the grass. Grip the pencil closer to the tip and change the direction of your shading frequently. Then, with more pressure and control, shade the darkest area of the shadow where the bale touches the ground and around some of the blades of grass.

how to
draw a

castle tower

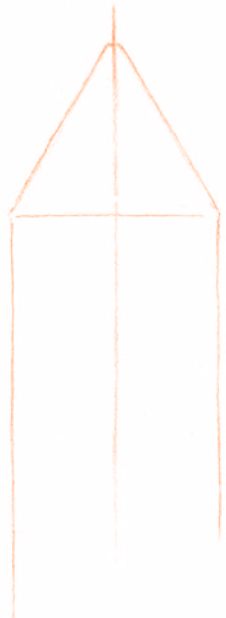
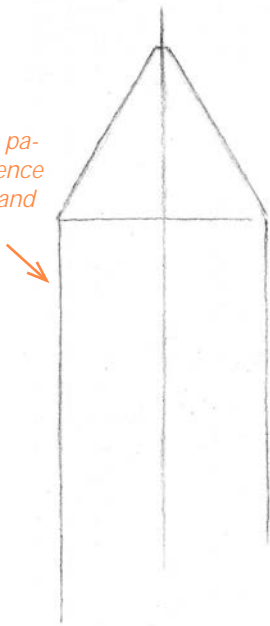
Steps: 5 Dif culty: ☒ ☐ ☐ ☐ ☐

This tower is constructed with a cylinder for the walls and a cone for the roof. When the edges of these basic shapes curve upward, as they do at the eaves of the roof and in the rows of stones, it creates the illusion that the structure rises above the viewer.





Use the sides of the paper as a visual reference to draw the vertical and horizontal lines.



- 1 With a 4B pencil, create a pale construction. Begin this by drawing a vertical axis and a shorter crossing axis.

For the roof, draw a triangular shape that is evenly divided by the axis.

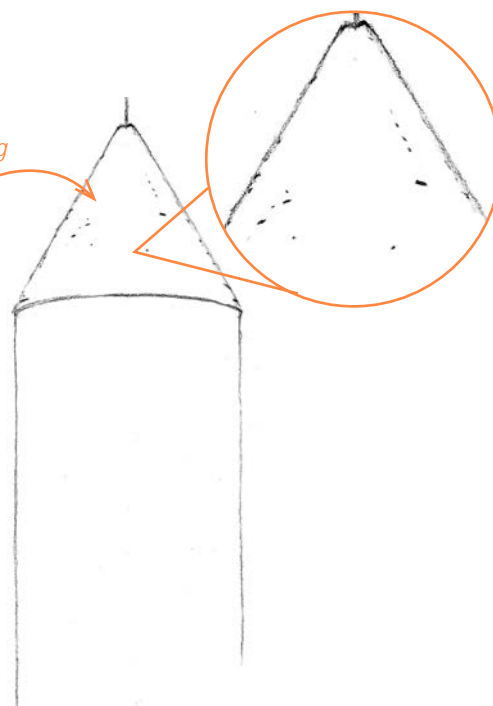
Draw the left side of the tower a little longer than the right side. Keep the lines light as you refine them to be straight up and down (plumb).

- 2 Draw the horizontal curve of the eaves so that the right side of the curve is a reflection of the left. Notice there is a very small curve where the line of the eaves meets the side of the tower. Don't let it end in a point that would make it look flat.

With the pencil tip, draw rows of dark marks for the shadows beneath the roof tiles. These rows repeat the curve of the eaves.

3

Keep the rows curving and level.



CONCEPT

A cone is a 3D basic shape with a circular base and curving side that tapers to a point.

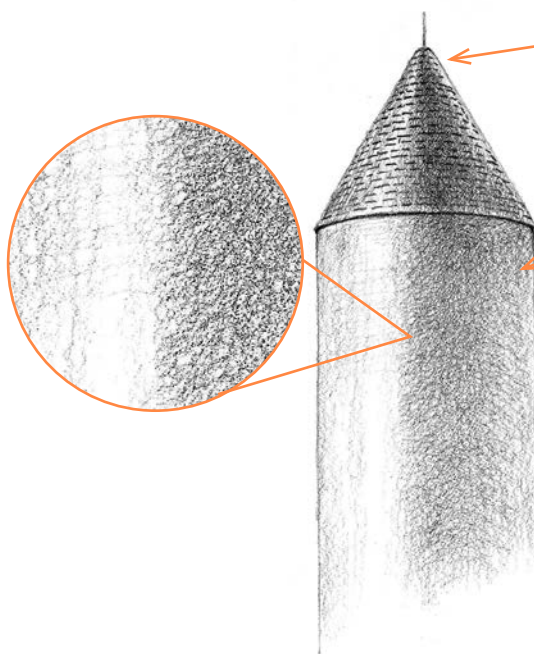
Shade the entire tower cylinder with short lines that follow the curve of the eaves. Leave the area just left of the center a little lighter, to show where the sunlight falls.

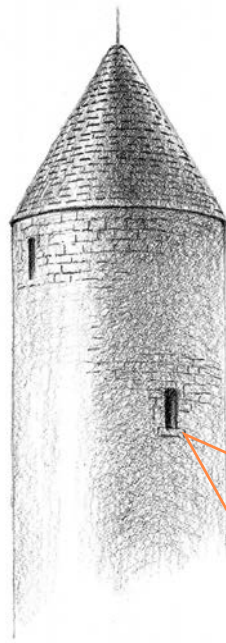
Adding darker shading on the right "shadow" side of the tower completes the illusion of it being lit from the left. The far-right edge is a little lighter to show that the form is turning away there.

4

Shading effects of the cone become more compressed toward the peak.

Changing value from dark to light describes change in the surface.

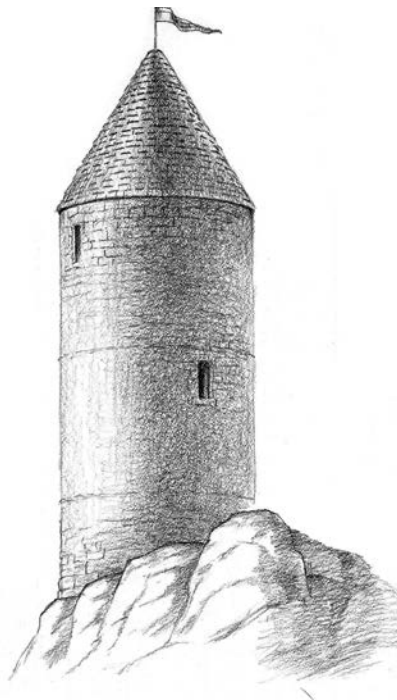




The windows are constructed with bigger base and lintel stones than the tower wall.



- 5 The upper-left window is turned away from the viewer more than the lower-right one, so it is a bit narrower. Their tops and bottoms curve slightly, following the elliptical line of the cylindrical form.



ADVANCED VARIATION

Add the flag by first drawing its contour with the tip of a sharp 4B pencil. Then shade it where the flag turns away.

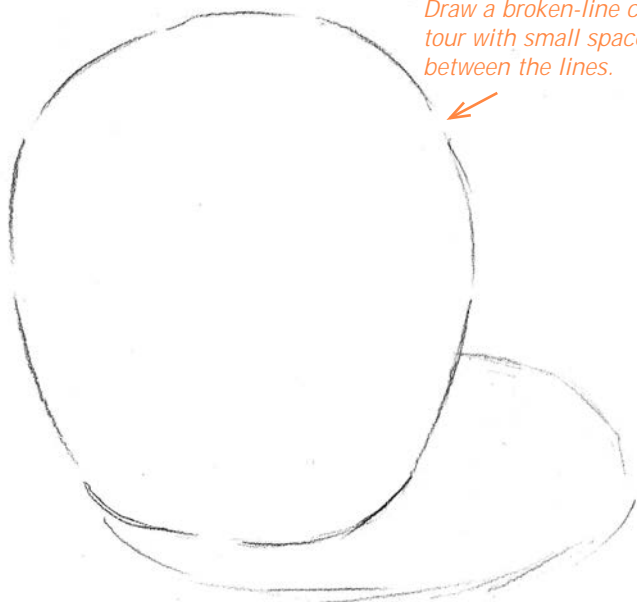
The cliff base is angled like the top edge of a cube seen from below. Its peak starts at the right side of the tower with the top edges angling downward. Most of the shading lines follow these angles with heavier shading on the right, opposite the sun.

how to
draw an

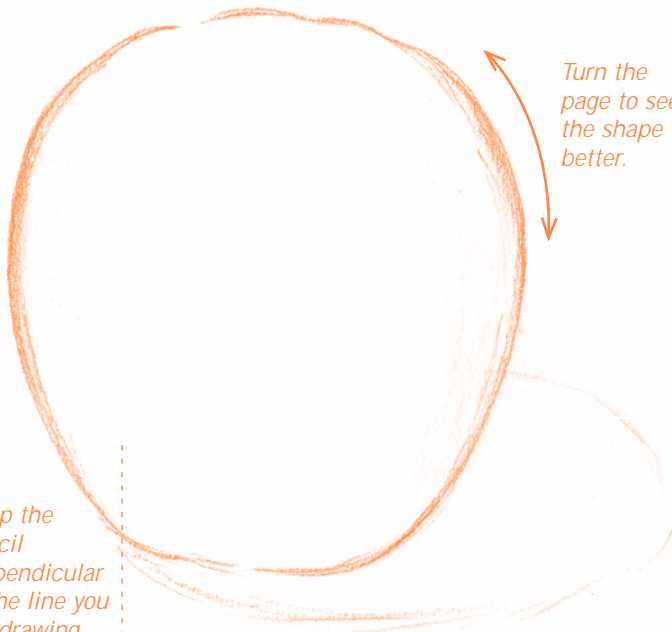
apple

Steps: 5 Dif culty: ☒ ☐ ☐ ☐ ☐

Observe an apple and you'll probably think about how an apple tastes. Look at the outside edge, called the *contour*. Most apples are round, but each has its own combination of curves. What may look like one large curve might be a series of smaller curves. With this drawing, take time to observe the subtle changes of the contours.



Draw a broken-line contour with small spaces between the lines.



Keep the pencil perpendicular to the line you are drawing.

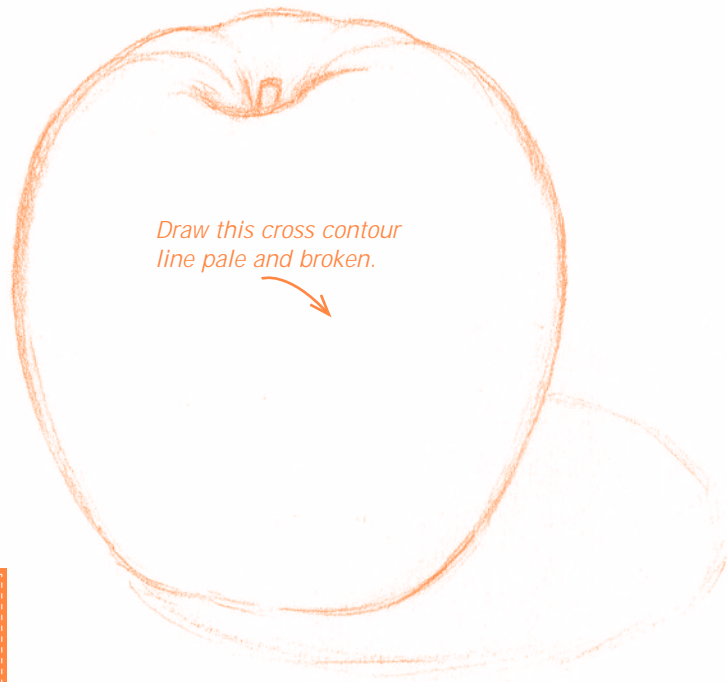
Turn the page to see the shape better.

1 Draw the contours of the apple and shadow with small spaces where the main changes happen. Use a 4B pencil and keep the lines light.

2 Now refine the contour with multiple lines, but not so many that it becomes fuzzy. Include the horizontal curve of the top depression and the stem. If necessary, drag the kneaded eraser along the lines to smooth them.

Draw the cross contour curve where the transition between the light area and the shadow area of the apple surface occurs. Notice the curve is slightly higher on the right side because the light source is high and to the left.

3

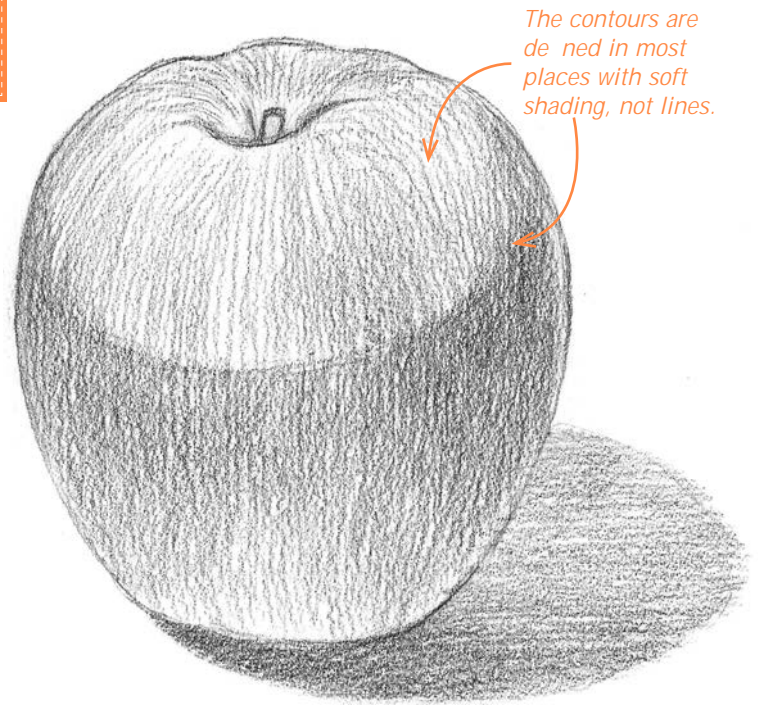


CONCEPT

A **contour** is an edge line. **Cross contour** lines appear inside a shape and describe curved surfaces with arcing lines and at surfaces with straight lines.

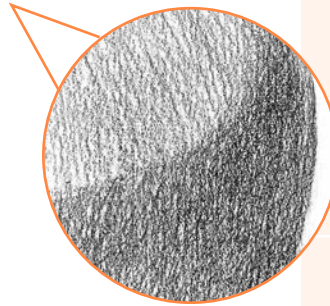
Shade the areas by drawing small, curved lines in the apple shape and straight, horizontal lines in the cast shadow shape.

4

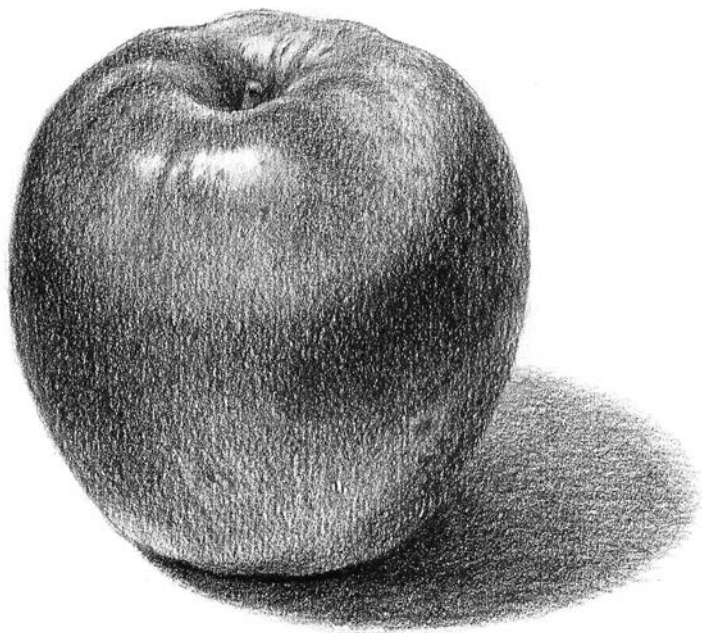




The darkest areas appear darker when they are next to a light area.



- 5** Intensify values and gradations to develop the illusion of depth and light. The shaded area of the lower apple and the cast shadow should have a fairly even tone when you shut one eye and squint. But on closer view, they should have lighter and darker areas for interest.



ADVANCED VARIATION

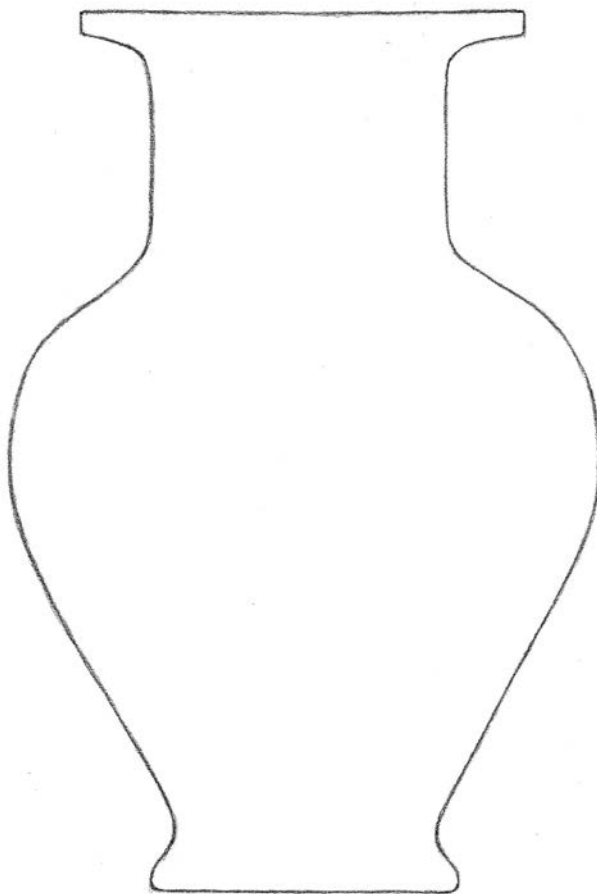
Intensify the dark areas with a 6B pencil. Refine the apple contour to be soft in some places and more defined in others. Erase highlight areas by pointing a kneaded eraser and pressing it repeatedly into the paper. Knead the eraser when the tip is shiny with graphite. By erasing a little larger area than the final highlight will be, you can shade softly with a 4B pencil to define the erased area.

how to
draw a

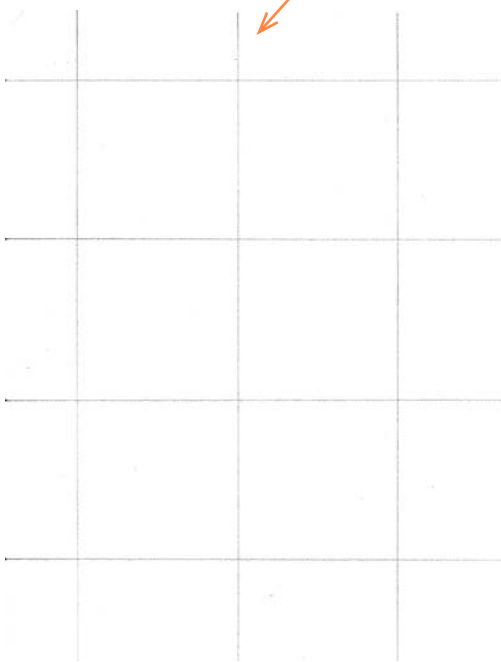
vase

Steps: 5 Dif culty: ☒ ☐ ☐ ☐ ☐

Most objects are easier to draw when broken into smaller sections. This vase is symmetrical, so it can be divided into similar left and right sides. Dividing the halves into three more sections helps you see details of the contour and size relationships.



Draw the grid construction lightly so it can be erased.



- 1 With a 4B pencil, create a six-square grid that is three squares tall and two squares wide. Mark a 1-inch (2.5cm) margin at the top and left sides. Then mark 2-inch (5cm) spaces to create the grid squares. Use the ruler's straightedge to connect the marks with horizontal and vertical lines.

- 2 Begin the contour by marking the main transition points with light line segments and leaving spaces between them.

When you're confident of the placement of the transition points, connect them and refine them into a light, smooth contour.

Begin drawing the right-side contour and create it the same way as the left side.

3

Keep these beginning lines pale.



CONCEPT

A **grid** is a construction device with a pattern of horizontal and vertical lines that the artist can use to analyze and copy images block by block.

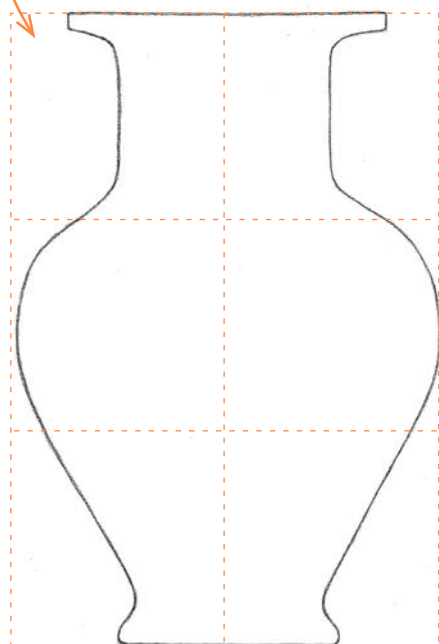
Critique your progress by looking for parts that need adjustment. The neck of the vase was a little narrow on the right side and was revised.

4

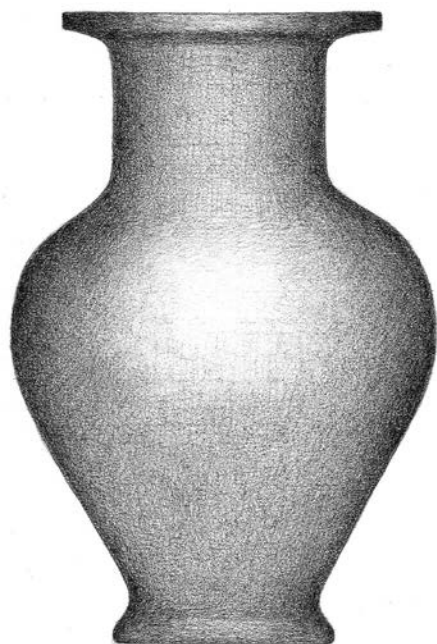
Turn the page upside down for a fresh angle to compare the sides.



Shape the kneaded eraser into a chisel tip to clean up stray marks outside the contour.



- 5 Erase the grid and extra lines and revise the contour to be smooth and evenly toned.



ADVANCED VARIATION

Shade the vase to intensify the 3D form with a kind of shading called *modeling*. This kind of shading makes the parts that are farther away darker and the parts that are nearer lighter.

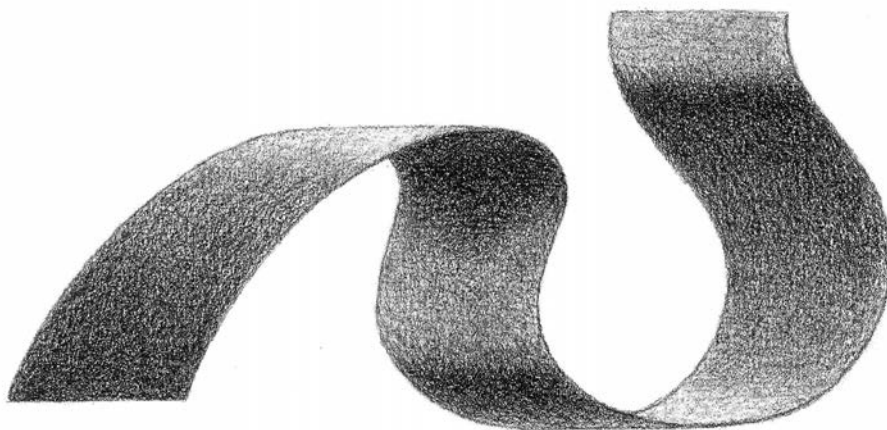
Begin by shading the entire form with light horizontal lines. Then darken areas with short marks drawn at a different angle.

how to
draw a

ribbon

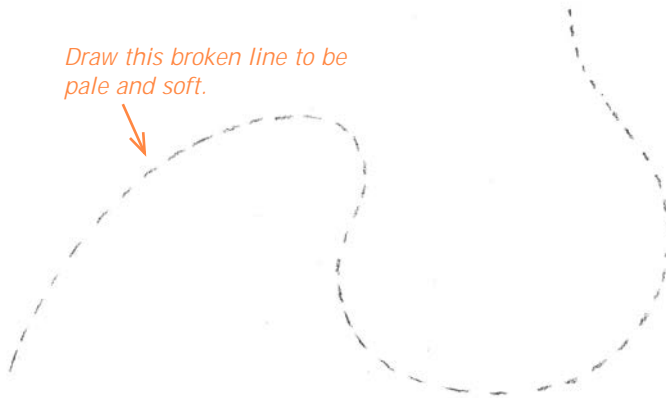
Steps: 5 Dif culty: ☒ ☐ ☐ ☐ ☐

A drawn object is part contour and part surface. Ribbon is a great subject for exploring the way a surface twists and turns and discovering how to translate that surface with graphite. Curving this surface in pencil is a combination of gradations and overlapping shapes.

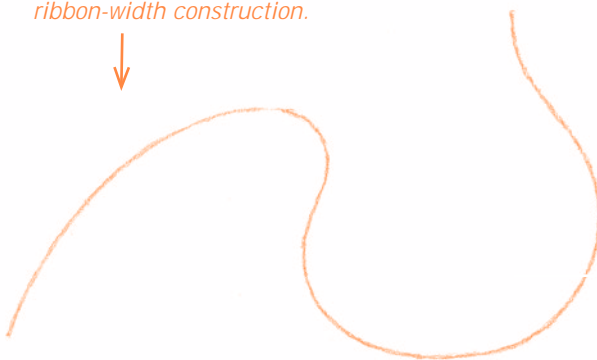




Draw this broken line to be pale and soft.



Align the ruler to be parallel to the page as you draw the ribbon-width construction.

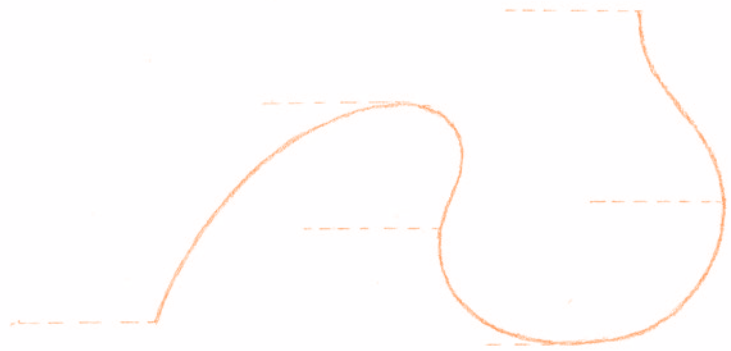


1 Draw a curving, broken line.

2 Refine the line to be smooth and evenly toned. Then, with a ruler, draw 1-inch (2.5cm) widths with broken lines. Draw these in several places where transitions occur. Note that the main transition is at the apex of the curve.

Draw the far edge of the ribbon to be 1 inch (2.5cm) to the left of the near-edge curve. Draw it as a pale, broken line. Some curves are easier to see and copy with a vertical plumb line as a visual reference. When you've drawn in the verticals lightly, compare the two curves by focusing on one and then glancing at the other.

3

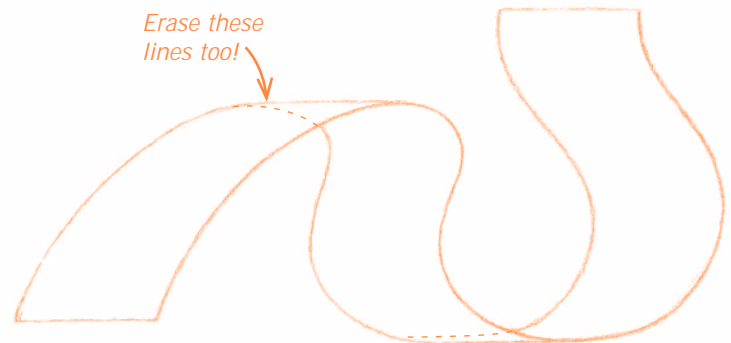


CONCEPT

Construction lines, such as vertical "plumb" lines, horizontal "level" lines, grids, guidelines, or tick marks, help position parts of a drawing. Drawn lightly, they are usually erased later.

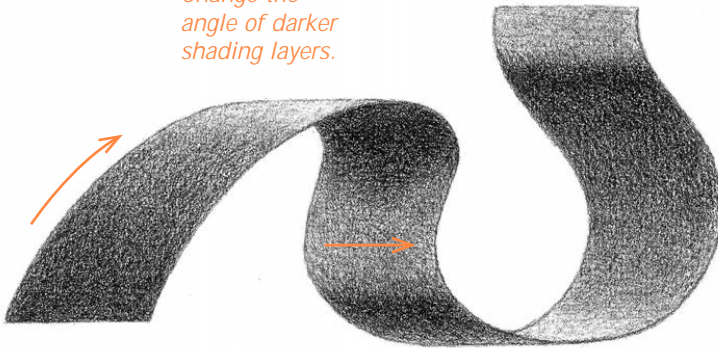
Erase the construction lines and where the surface overlaps the rear edge. Then refine the contours of the ribbon.

4



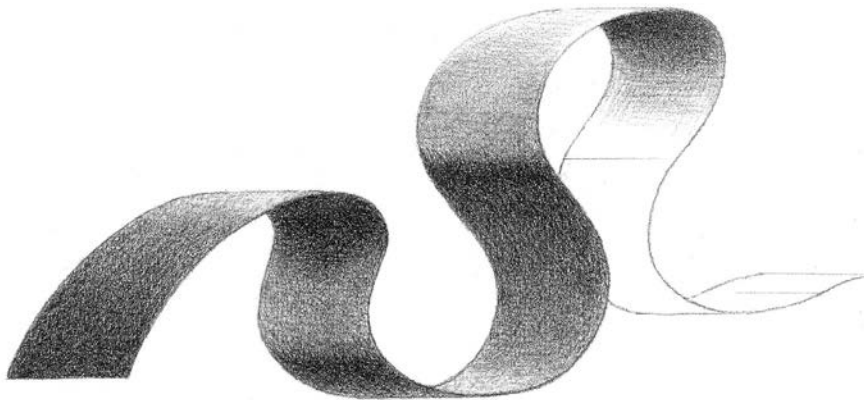


*Change the
angle of darker
shading layers.*



- 5** Shade the ribbon surface with horizontal lines. Darken the value of the underneath parts of the ribbon. Also create gradations that visually show the change of the surface direction.

ADVANCED VARIATION

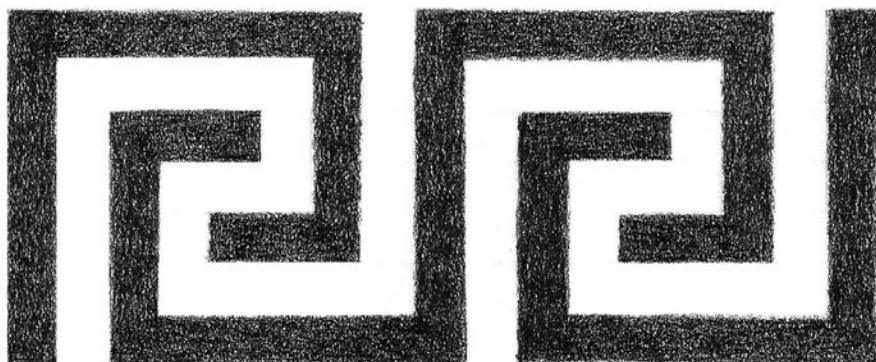


Extend the length of the ribbon using the preceding method. You might continue to the right while creating unusual overlapping sections. Or if you want a big challenge with a surprising result, use a rhythm similar to the first section and continue to the right and then upward, back to the left, and around to the beginning to create a closed loop.

linear pattern

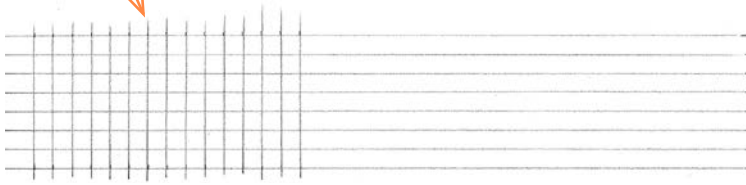
Steps: 5 Dif culty: ■ ■ □ □ □

Patterns that repeat along a line can be ornamental or practical, or both simultaneously. They're present in a range of decorative and useful items from textiles to tire treads. Some complex and inventive linear patterns begin with very simple shapes. Repeating them while alternating the position develops a visual relationship between the colored shapes and the resulting background shapes.





Measure carefully and make sure the lines are straight and parallel.



Draw the ruled lines lightly.

Lighten the grid area with a kneaded eraser.



- 1 Draw a grid: Begin at the left side of the page and make a tick mark every $\frac{1}{2}$ inch (1.25cm) to create seven half-inch spaces. Do the same on the right side of the page. Then with a ruler as a guide, connect the marks that are level with each other to make eight parallel lines.

Using the same process, create 15 vertical lines, each $\frac{1}{2}$ inch (1.25cm) apart, that cross a section of the horizontal lines.

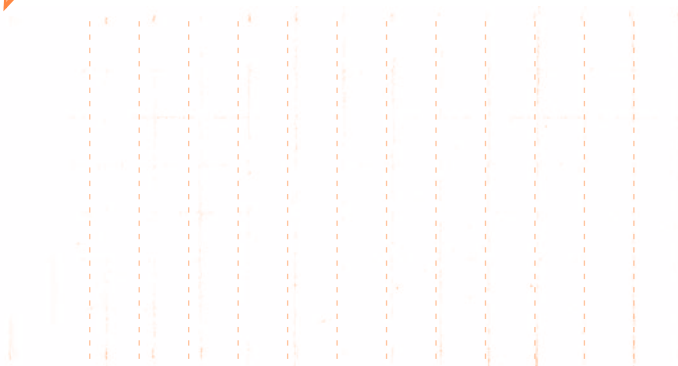
- 2 Lighten the crossing lines by lightly rubbing the area with a kneaded eraser.

Erase excess ruled lines beyond the grid and brush away any eraser dust.

With a 4B pencil, shade a one-square wide, seven-squares tall section along the left side. On the first pass, shade the shape lightly to establish an even tone. On the second pass, shade it darker without pressing so hard that it becomes shiny. Refine the contour last.

3

When shading, save the edge for last and be careful to not over-darken it.



CONCEPT

Images involve a relationship between a prominent object (figure) and a setting (ground). Sometimes the two can reverse roles, as the dark and light parts of this linear pattern do.

It can be helpful to first mark the squares you will shade later with a light dot or scribble. Mark six more squares on the top row and shade them with the process from step 3.

4

Double-check that the squares marked on your grid correspond to the completed drawing.

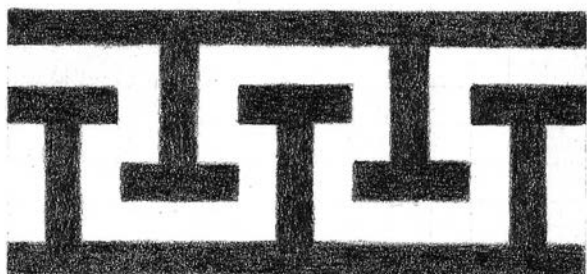
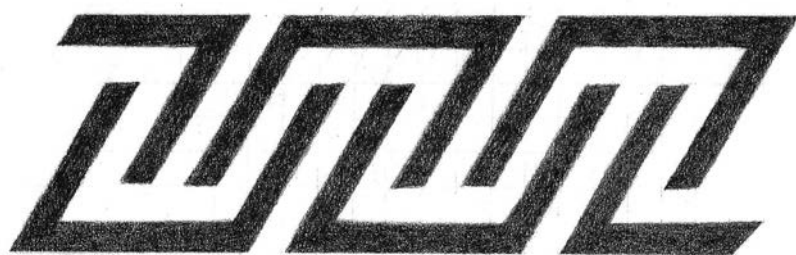




Using soft vertical then horizontal marks, repeat the direction of the grid lines to incorporate them.



- 5** Complete the pattern with the same process of determining the number of squares based on rows or columns in the completed drawing. Mark the corresponding squares on your grid and shade them.



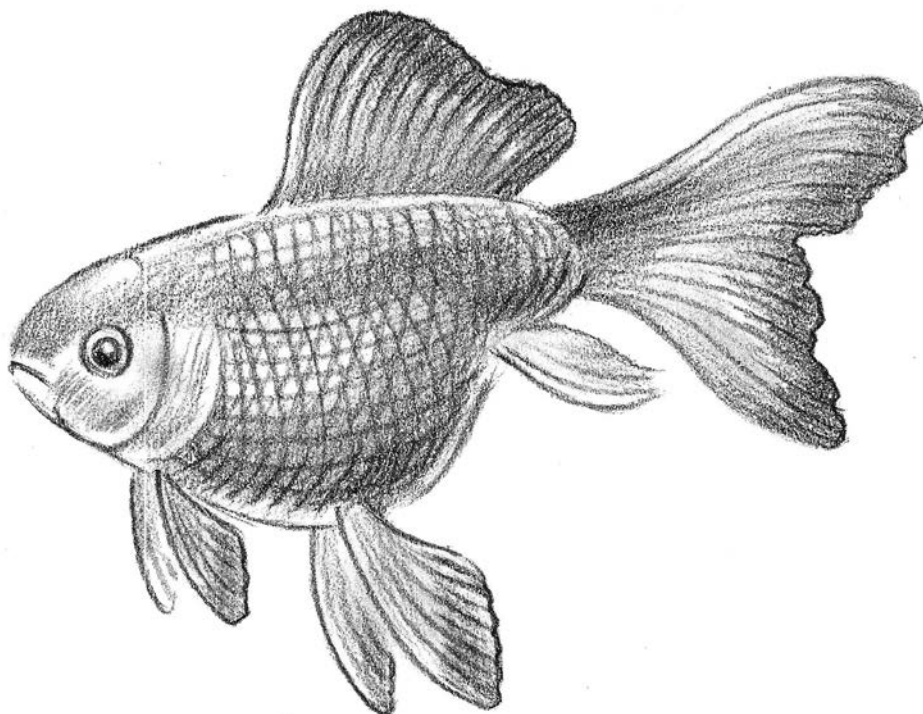
ADVANCED VARIATION

Using the same type of grid and shading process, invent a new linear pattern. Shade the squares of a grid to create a small segment that alternates and repeats. Remember that while you are creating the shaded figure, you are shaping the white space of the ground.

gold sh

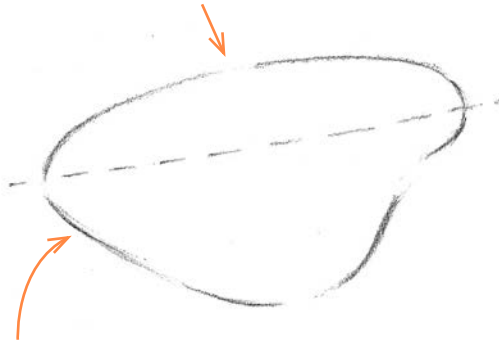
Steps: 5 Dif culty: ■ ■ □ □ □

Gracefully bending, circular, billowing, bulging, and undulating describe the contours of oriental gold sh. Curves usually imply softness and relaxation, but when found in shells and bones, they also provide strength. To draw curves, allow the wrist (or elbow and shoulder for large curves) to be a pivot and turn the paper so the pencil remains perpendicular to the line.

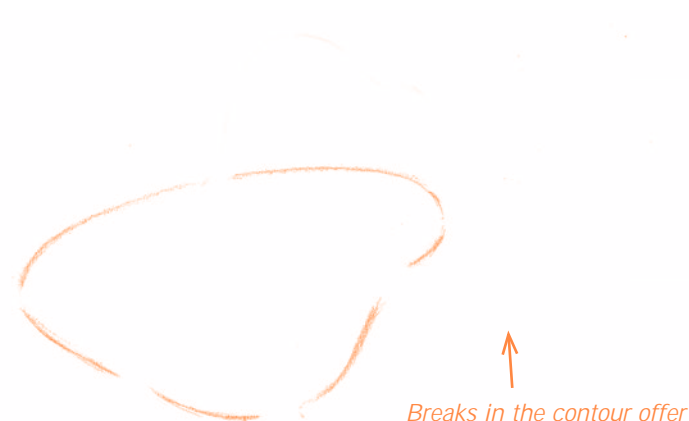




Leave spaces for a soft look and to emphasize where body parts will attach.



Curves can imply trajectory and speed; they can appear open and slow, or more closed and fast.



Breaks in the contour offer short rests and are similar to taking in breaths of air while talking.

1 Draw a dashed construction line about 3 inches (7.5cm) long that describes the angle of the longest part of the body. The body of the goldfish is simultaneously round and triangular. Draw a light, broken-line contour of this shape. The top is a slower-looking curve, while the curves at the face and tail are more closed and appear faster.

2 Build out from the body: Draw the contours of the dorsal fin, pairs of pectoral and ventral fins, and tail with small spaces where transitions occur.

Add the features of the head. The curve of the mouth is level with the lower part of the eye, and both are made with soft lines. Lift the tip of the pencil off the paper at the end of the strokes to create a soft fade to the lines. The curve of the cheek points upward to the end of the mouth.

3

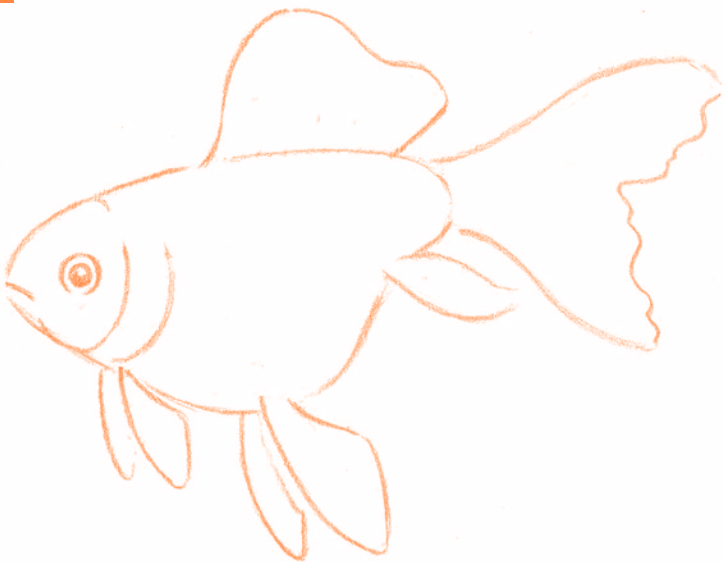


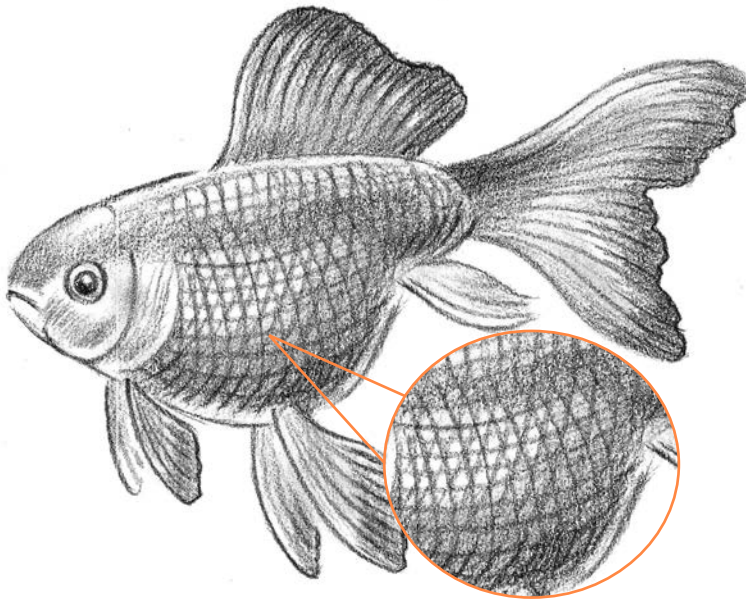
CONCEPT

Curvilinear edges and contours arc and add soft, graceful, undulating, or rippling qualities to a drawing. Draw them with a flexible wrist and the pencil perpendicular to the line.

Draw the long and curving medial line across the side of the fish. Shade the underside of the body with short, curving strokes, but stop before reaching the contour to create the illusion of rounding. Begin shading each fin at the tip, and then draw the thin, repeating bones within it.

4



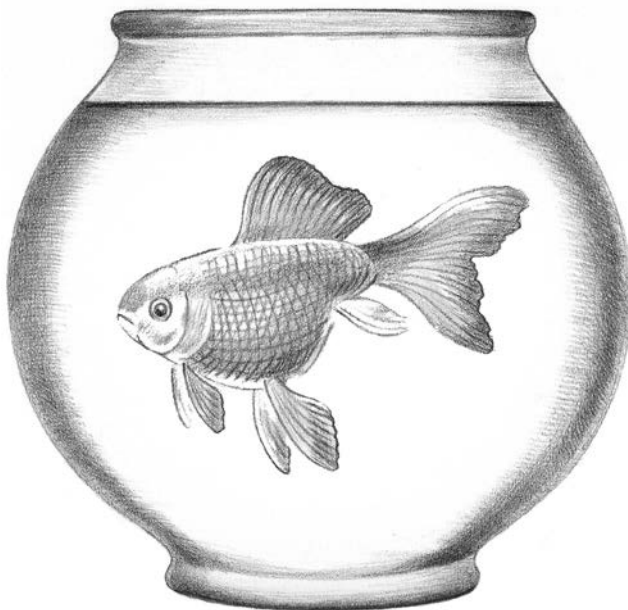


Evenly space the crossing lines of the scales to create small triangle shapes.

5 Shade the fish lightly, leaving light areas around the eye, mouth, ridge of the back, and belly. Darken the tips of the fins and the belly.

Finally, draw crisscrossing lines to create the texture of scales. Draw rows of them that curve with the body horizontally from gills to tail, then at an angle from belly to upper right, then from belly to upper left.

ADVANCED VARIATION



Complete the illusion of the goldfish in water by adding a fishbowl. First draw the symmetrical, curvilinear contour of the bowl and check that the top rim and foot are level. Draw a dark horizontal line at the water level and shade soft gradations at the sides with layers of short, curving strokes. Cross these at an angle to darken the area while leaving the part near the contour lighter, creating the illusion of rounding.

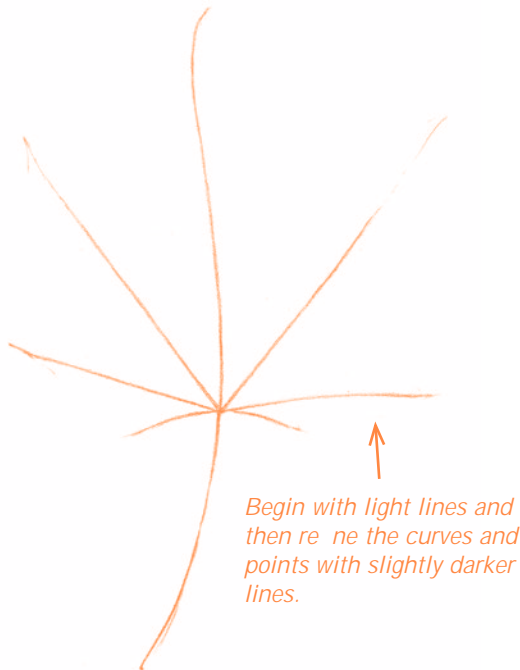
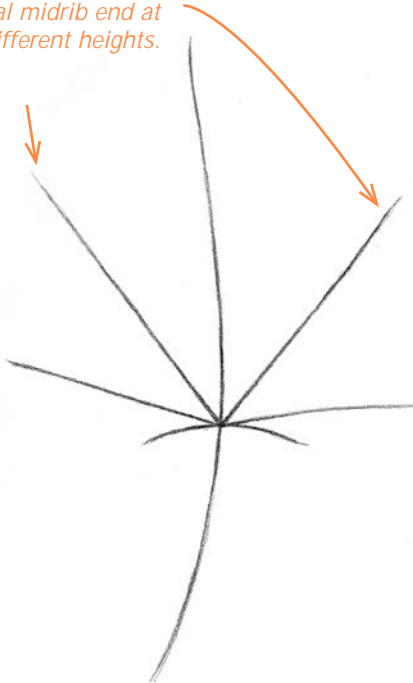
leaf

Steps: 5 Dif culty: ■ ■ □ □ □

The branching structure of leaves resembles the tree and appears in other natural forms. Rivers, the human circulatory system, the bones of the hand, and microscopic points of snow flakes are a few that make this design relevant. Knowledge of a subject's structure helps the artist determine shading patterns.



Veins on opposite sides of the central midrib end at slightly different heights.



Begin with light lines and then refine the curves and points with slightly darker lines.

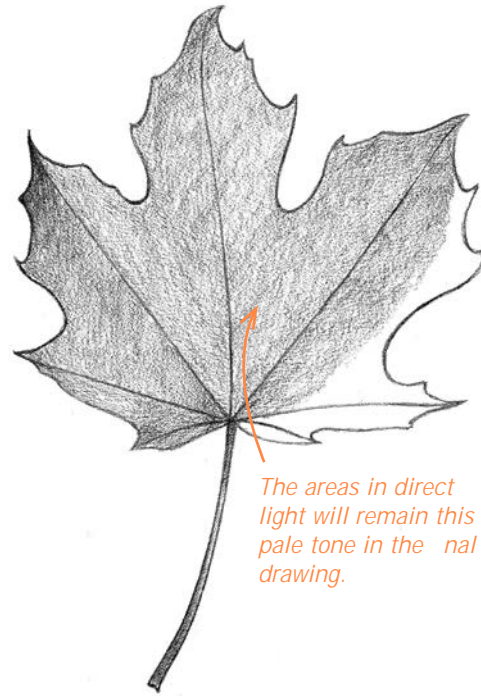


- 1 Begin this maple leaf by drawing the central midrib, four veins, and stem with a 4B pencil. Begin with soft lines, and then go back and refine them to appear smooth.

- 2 Draw the leaf contour with smooth transitioning curves and points. Lighten the stem and then, using the original lines as a guide, redraw it as a contour shape, gradually widening and ending with a small curve where the two sides meet.

Shade the leaf to make a light tone across the entire main shape.

3



The areas in direct light will remain this pale tone in the final drawing.

CONCEPT

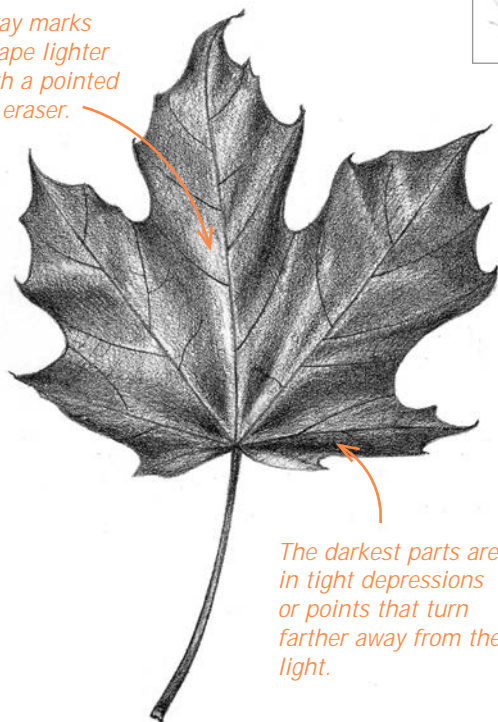
Branching growth is based on a central line or spine with offshoots of varying lengths. Growth designs influence the pattern of light and shadow areas of a drawn object.

Shade darker areas, such as some of the outside edges and depressions, in the leaf surface.

4



Erase stray marks and reshape lighter areas with a pointed kneaded eraser.

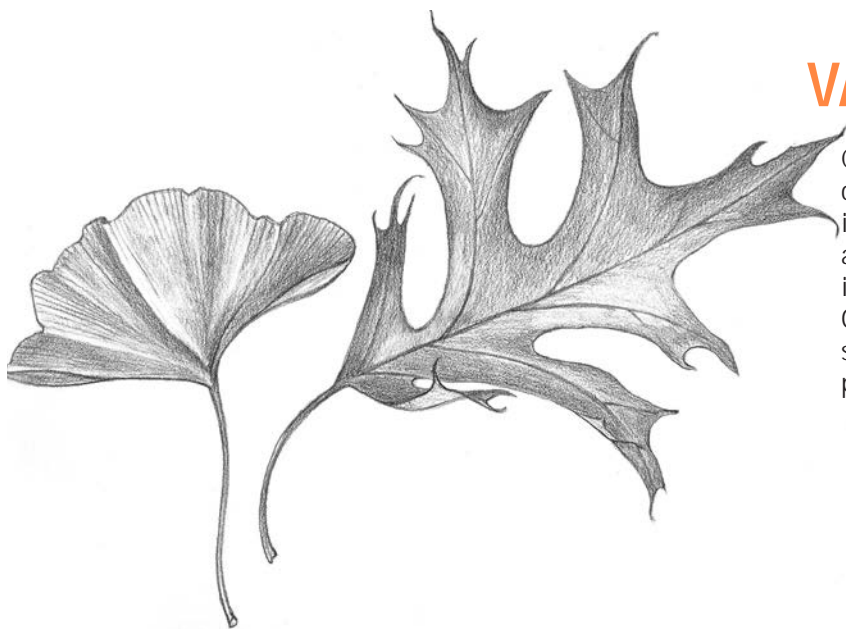


The darkest parts are in tight depressions or points that turn farther away from the light.



- 5 Darken the shadow areas of the surface and create soft transitions from dark to light. Darken veins in some of the lightest areas to create interest with the illusion of raised texture. Refine the main contour to have a smooth edge and shading that changes from dark to light in unexpected ways.

ADVANCED VARIATION



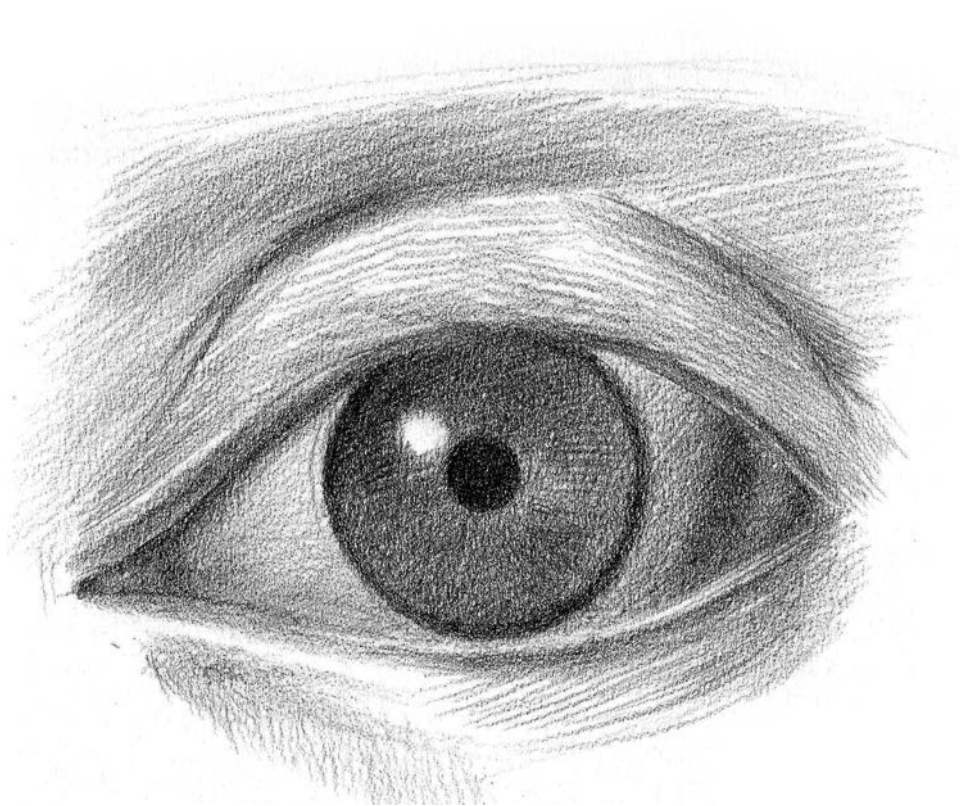
Create a series of drawings of leaves using the process in this lesson. They're free and easy to find. Look for interesting and unusual ones. Old, curling leaves can have surprising shapes and shadow patterns.

how to
draw an

eye

Steps: 5 Difficulty: ■ ■ □ □ □

The eye and surrounding flesh is a landscape of form. The ridge of the brow plunges downward and disappears inside a fold, emerging as the eyelid. Shading light and dark with a pencil describes these exciting surface changes with values, from the white highlight to the black pupil.





The line of the eye is a construction line passing through the lid's inside and outside corners.



The thickness of the lids is more pronounced at the outside corner.

- 1 To draw an eye, first describe the unique angle of the eye being drawn. In this instance, draw a 4-inch (10cm) line that angles upward slightly to the right.

With a broken line, draw the main contour shape of the eye-lids at the opening of the eye. The narrow area at the left is the start of the tear duct. These faint lines will be incorporated into the shading later.

Erase the line of the eye.

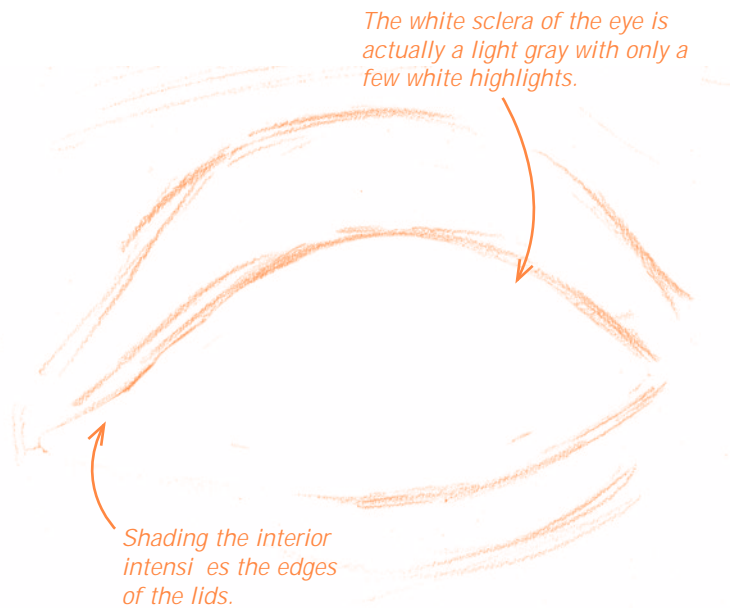
- 2 Rough in the remaining main shapes beginning with the circumference of the iris and the pupil. Notice that a small part of the iris disappears beneath the upper lid. Maintain the shapes of the white of the eye to the left and right.

Indicate the membrane of the tear area with a vertical mark.

Draw the light beginning of the crease of the upper lid and the bulge of the lower lid.

Shade the interior white of the eye, leaving only the highlight at the left of the pupil the white of the paper. Shade the far left and right darker to create the illusion of the sphere of the eyeball.

3

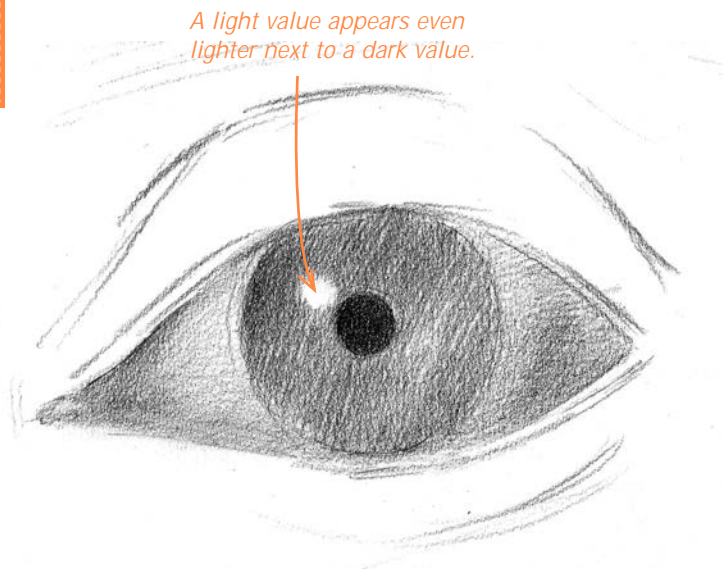


CONCEPT

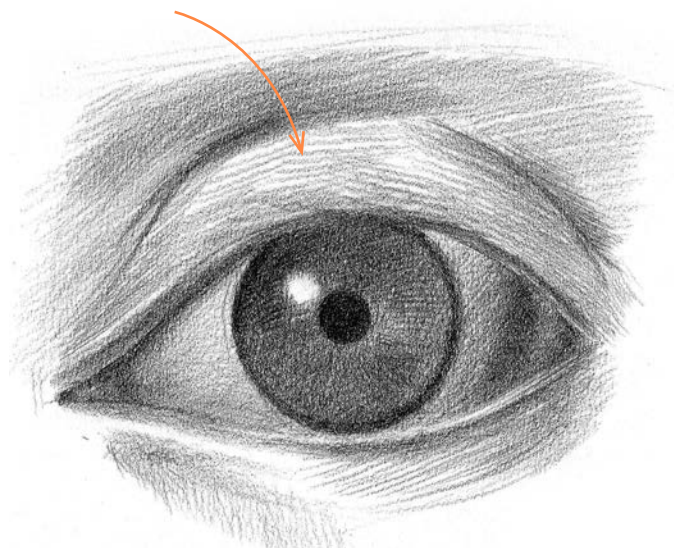
Value, also called tone, is the lightness and darkness in an image. The artist designs images with values in patterns ranging from lightest light to midtones to darkest dark.

Darkening the value of the iris intensifies the highlight. Shade the iris darkest there and slightly lighter to the right of the pupil.

4



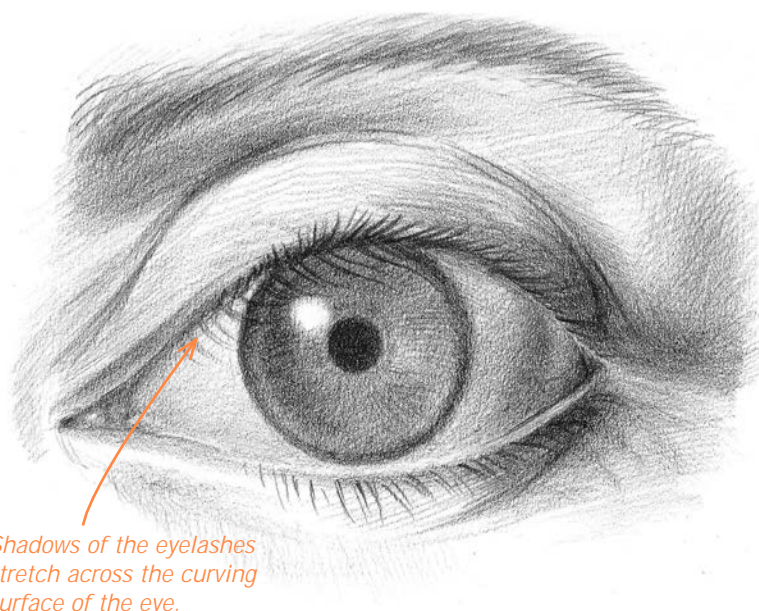
Directional shading lines change direction, with the form creating the illusion of rounding.



5 Add directional shading to develop the rounding of the lids as they stretch over the eyeball. Darken the value at the deepest part of the crease of the upper lid.

Refine the edges of the lids and the rim of the iris with soft, darker shading to intensify the illusion of the white sclera.

ADVANCED VARIATION



Shadows of the eyelashes stretch across the curving surface of the eye.

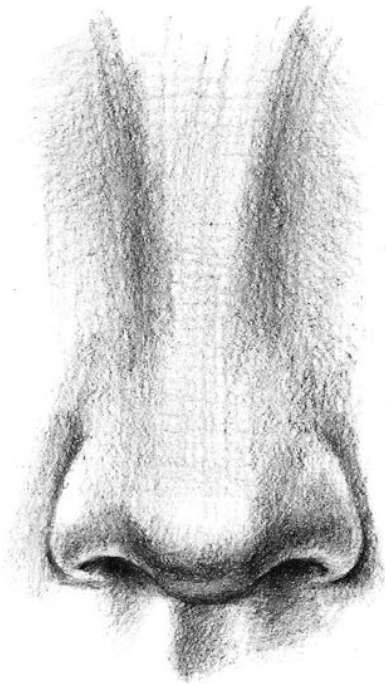
Add the eyebrow and eyelashes with quick lines that curve in different directions. While drawing the curves, lift away from the paper creating a light, sharp end.

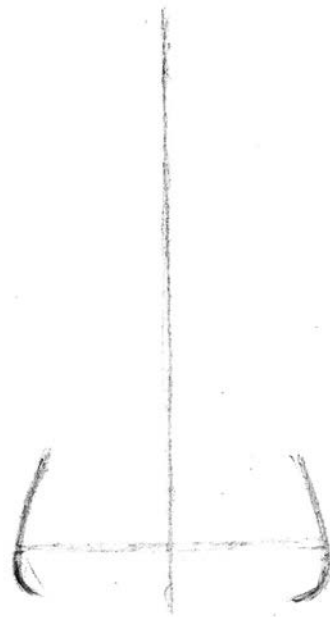
Darken the shading at the eyebrow, the right of the lids, and the edge of the upper lid to develop the effect of lighting from the left.

nose

Steps: 5 Dif culty: ■ ■ □ □ □

Beginning with the nose, the whole front view of the face is a series of transitions. There are a few contour edges in this view, but most of the surface description is made with gradations changing softly from light to dark value. Gradations are key to drawing the nose.





Grip the pencil at about a 30-degree angle with your fingertips 3 inches (7.5cm) from the tip.



- 1 To draw the nose from the front, first make a vertical axis about 4 inches (10cm) tall and a horizontal level line about 2 inches (5cm) long, to determine the placement of the nostrils.

Draw the angled sides of the nostrils that connect to the horizontal construction line.

- 2 The nostrils are curves that dip lower as they meet in the center and are parallel to the horizontal guideline.

Indicate the soft edge where the length of the nose transitions into the sides of the nose with several long, soft marks that angle inward and align with the tip of the nose.

3

Grip the pencil farther back and allow the wrist to bend a little while you shade these marks.

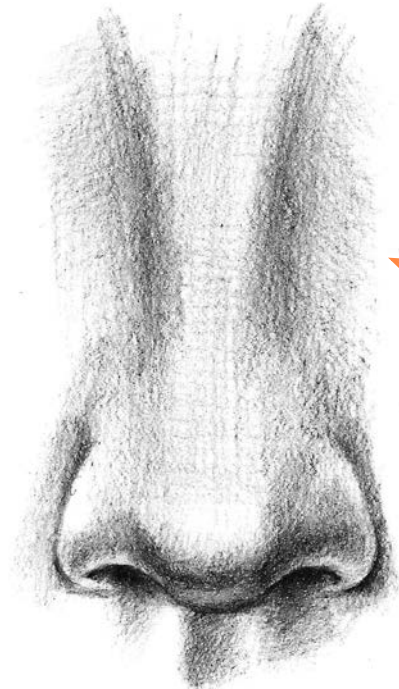
CONCEPT

A **gradation** is a value area that transitions from dark to light or light to dark and usually indicates a change in the surface and depth.

Draw the contour of the nostril and shade small gradations that lighten below the openings. Shade the winged shapes just above the nostrils to create the illusion of the tip of the nose. Leave the area directly above the nostril light and shade the area to the sides of the tip darker. The combination of light and dark surfaces creates the illusion of depth.

4

Shade the tip and sides of the nostrils with vertical shading strokes.



Describe the form with light directional shading angling downward at the sides of the nose.

5

Increase the shaded area of the bridge gradations with horizontal marks and then vertical marks. Add shading down the sides of the bridge and the sides of the nostrils (the ala).

The depression below the tip of the nose is called the philtrum. Soft shading that stops in an edge creates a ridge.



ADVANCED VARIATION

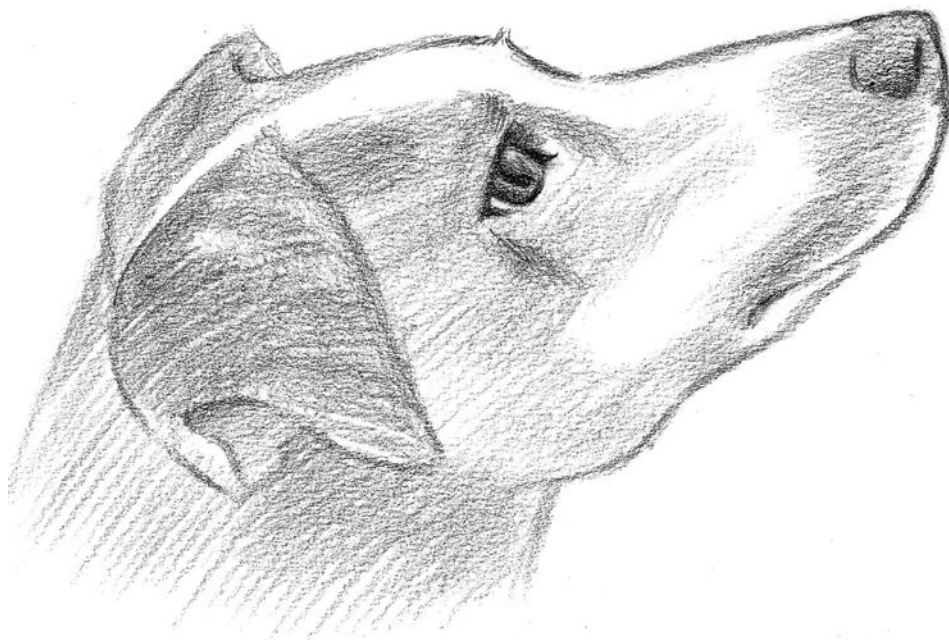
Add the eyes based on the eye in Lesson 14. Take the measurement of the width of the lower nose (2 inches/5cm) and turn it vertically. Balance it on the wing (ala) of the nostril; the top of this length in this position is the correct position for the inside corner of the eye. Note: The eyes are usually about one eye width apart.

how to
draw a

dog (profile)

Steps: 5 Difficulty: ☒ ☒ ☐ ☐ ☐

Well-trained dogs are great models and will pose long enough to capture each stage of a portrait for the price of a kibble or two. In profile view, this Jack Russell terrier's eye appears larger in relation to the muzzle than a larger breed's would and the nostril and eye shapes are compressed. J.R.'s determination and poise deserve a tasty reward.

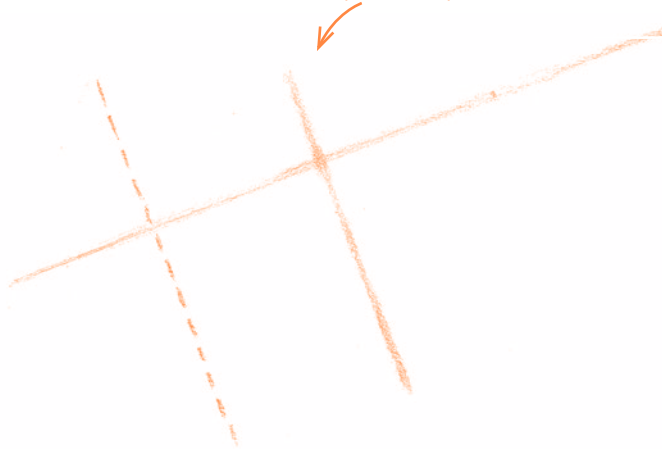




Draw this construction lightly with a 4B pencil.



Draw these lines with the side of the pencil's tip.



- 1 Draw a construction line that is $5\frac{1}{2}$ inches (14cm) long and angles upward at the right. Divide it in half with a perpendicular line. Draw a third line that is dashed and divides the segment to the left in half, also perpendicular to the first line.

- 2 Rough in the main contours with broken lines, using the three construction lines as a guide. Notice that the nose is at the right and the back of the head is at the left. The brow is at the top of the second line and the cheek is at the bottom. The far ear is at the top of the dashed line. The eye will be just to the right of where the two solid lines cross.

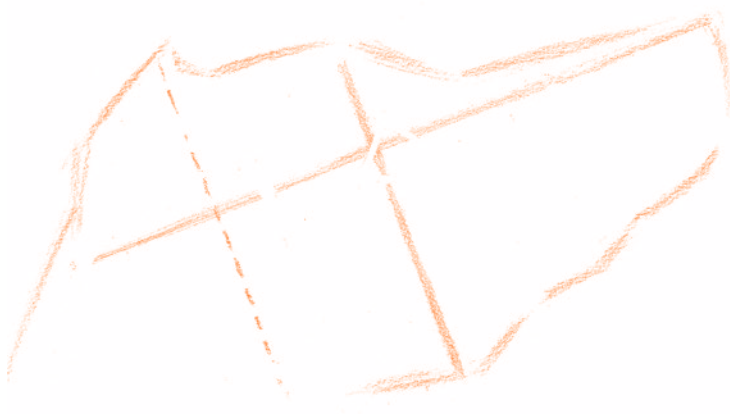
Finish roughing in the ears.
To draw the nearer ear, notice how the construction lines divide it into four parts, the lower left being the most complex.

3

Continue drawing with the side of the tip to create soft lines.

Begin the eye by drawing the two angled lines describing the upper lid. Draw the lower lid softly and wider as it angles upward. Leave small breaks at the two corners of the eye to avoid flattening.

Draw the lines of the nose and neck.



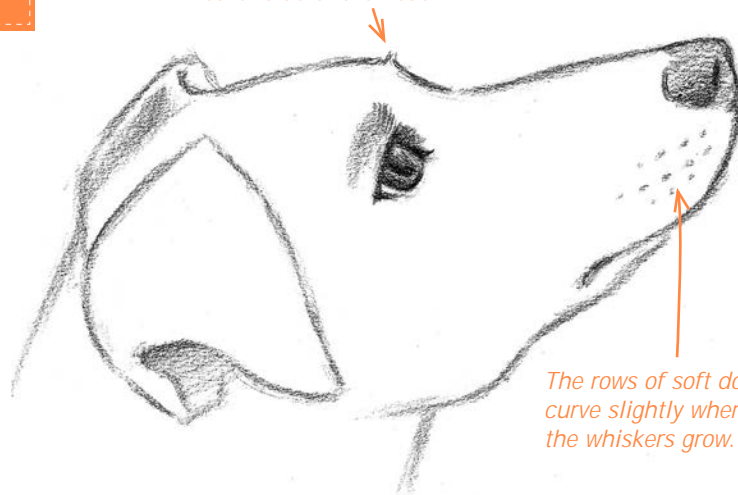
CONCEPT

The profile view describes the raw character of a head. The averted gaze is less intimate than the frontal view and invites the viewer to contemplate the subject's thoughts or the object of focus.

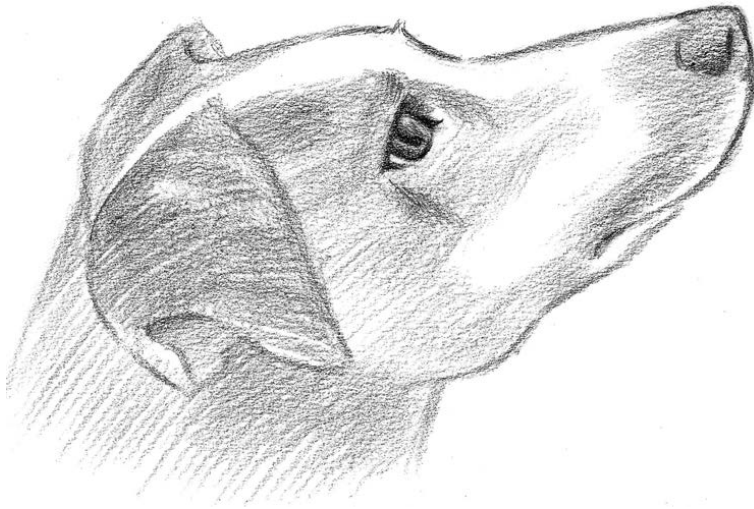
Add depth to the eye, nose, and ears with shading. Intensify the depth of the eye by darkening the nearer upper lid while softly shading the farther inside corner. Draw and shade the elliptical shape of the iris and pupil. Then touch the upper area with the point of the kneaded eraser.

4

The small marks at the brow are hairs from the other side of the head.



The rows of soft dots curve slightly where the whiskers grow.



- 5 Shade the ears, head, neck, and jowl with longer directional shading lines. Then add a second layer of strokes at a different angle to create subtle changes in the surface, especially around the eye and on the surface of the ear.

Change the direction of the shading strokes to follow the various directions of the fur.



ADVANCED VARIATION

Darken the value of the ears, nose, and eye while leaving edges and highlights fainter. Create the growth pattern of the fur with smaller, darker strokes.

From this view, one nostril is visible. Describe it with a shadow that has an upside-down teardrop shape and with highlights below, above, and to the right.

Rede ne highlights with a kneaded eraser.

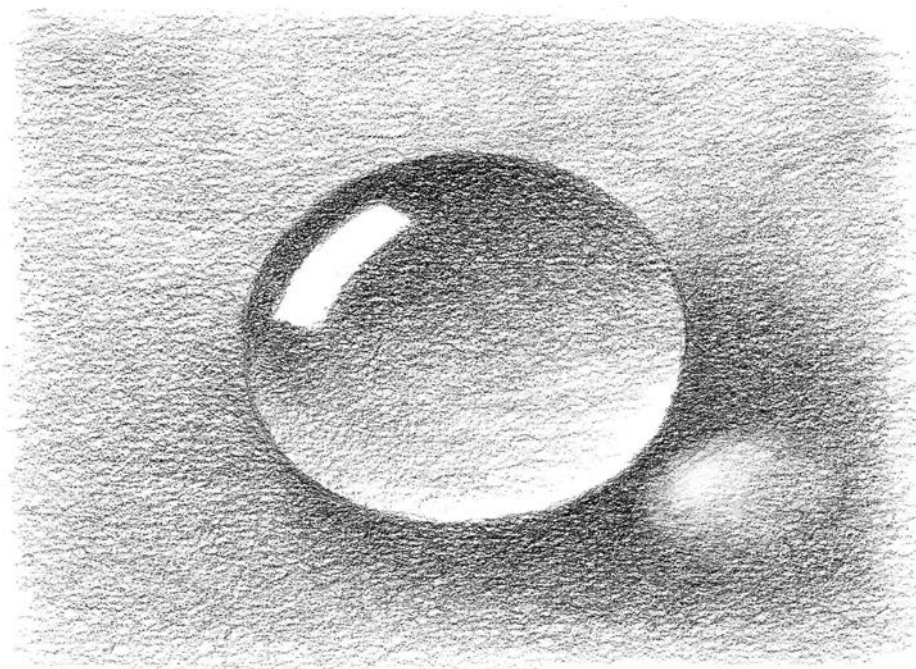
Add small strokes at the contour to create the texture of the whiskers and fur.

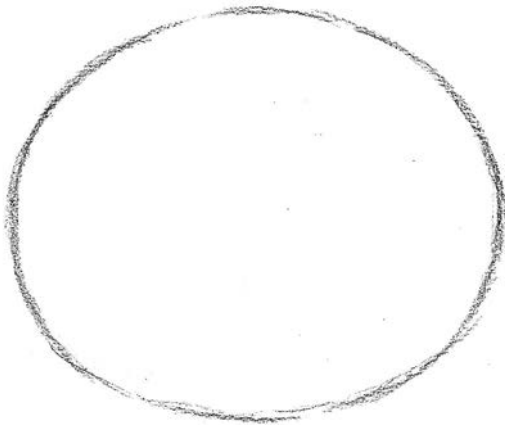
how to
draw a

water droplet

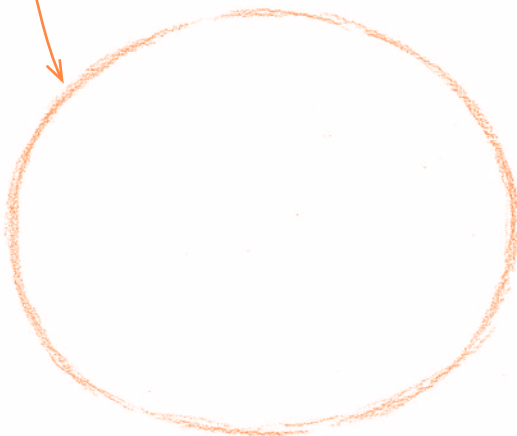
Steps: 5 Dif culty: ■ ■ □ □ □

The water droplet is the beauty mark of many art images and combines several basic drawing concepts. Its gradation, contrasting values, and distortion are found in most water and glass forms. Clear liquid refracts and changes the light and shapes seen through it. Here, the light source is at the upper left and travels at a 45-degree angle through the droplet.





Draw the highlight shape lightly and it will become part of the shading in the next step.



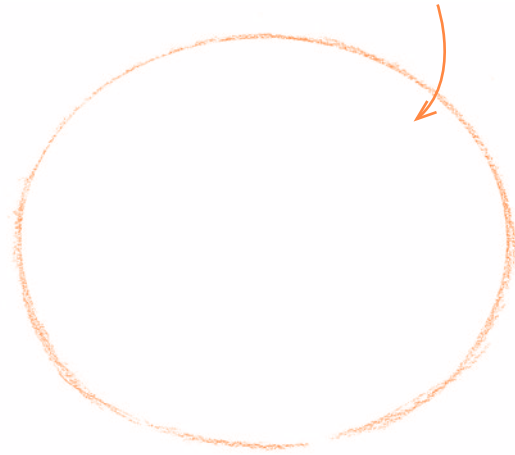
1 Draw the oval shape of the droplet. Turn the page as you allow your wrist to bend and keep the pencil perpendicular to the line. Refine the shape to smoothen, then lighten it with the kneaded eraser.

2 The main highlight of a reflective sphere, like this water droplet, is shaped by the light source and also follows the form of the contour. If the light source is round, the highlight is round; if it's rectangular, the highlight is rectangular. The main highlight of the water droplet is a combination of the rectangular light source and the curvilinear contour.

Shade the gradation in the droplet from dark at the top to light at the bottom. Move the side of the pencil tip back and forth in short strokes, keeping the pencil in contact with the paper. Shade up to the highlight shape softly and avoid any outlines.

3

Gradation areas should be evenly toned; individual lines should not show.

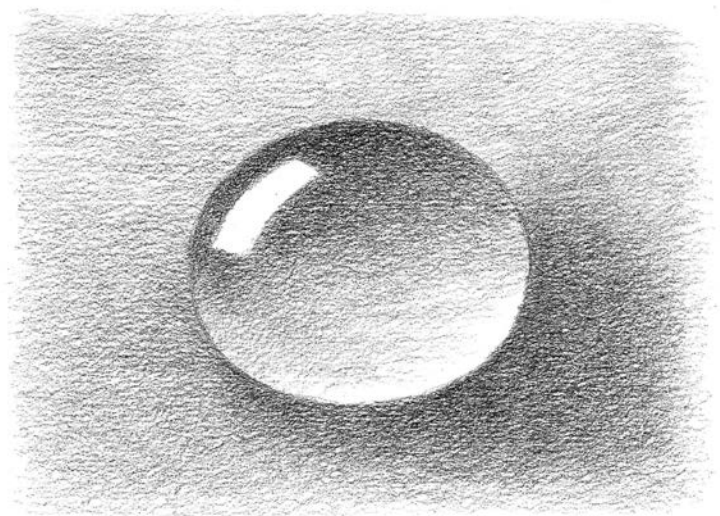


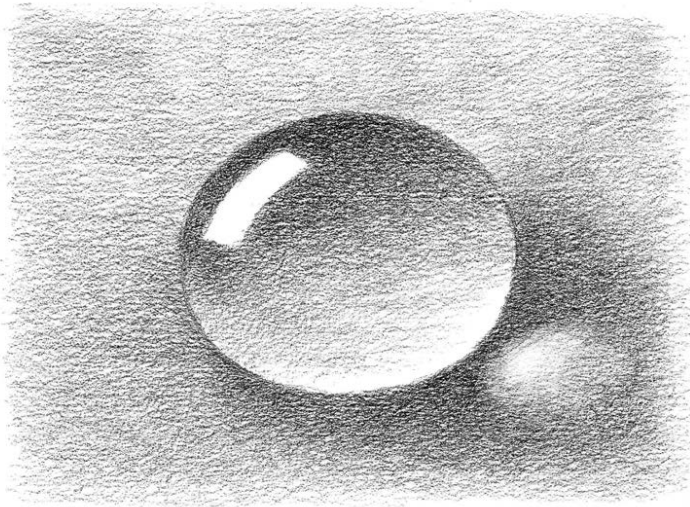
CONCEPT

A light source can be natural (the sun) or artificial, and it determines the light and shadow shapes of a drawn object. Its rays travel in straight paths, but can reflect and refract.

Shade a rectangular area outside the droplet with a faint value. It will be the surface beneath the droplet. Add a soft-edged shadow that spreads from the bottom of the droplet and to the right.

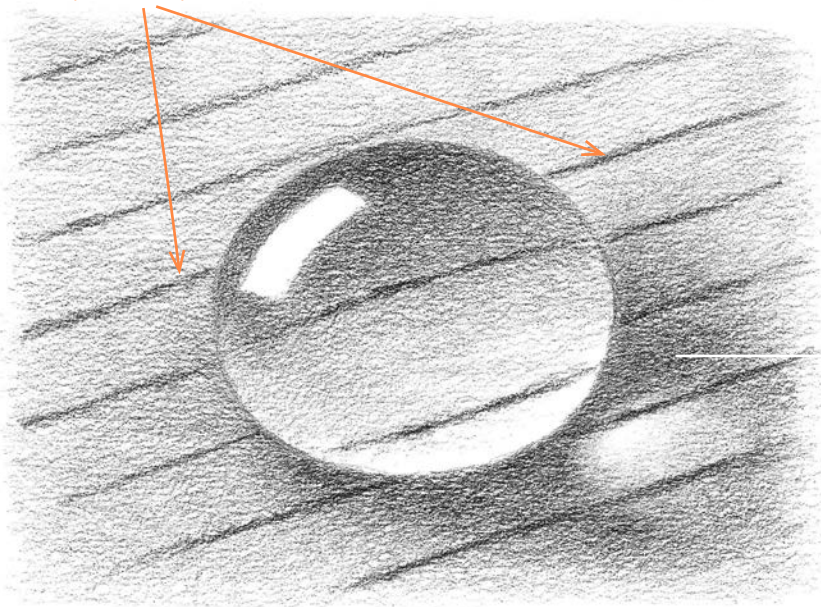
4





- 5** Create a light spot in the cast shadow that lines up with the light source and the main highlight. Use a kneaded eraser to lift the graphite of the shadow by pressing the rounded tip of the eraser into the paper a few times.

Make sure that the lines on either side of the droplet line up.



ADVANCED VARIATION

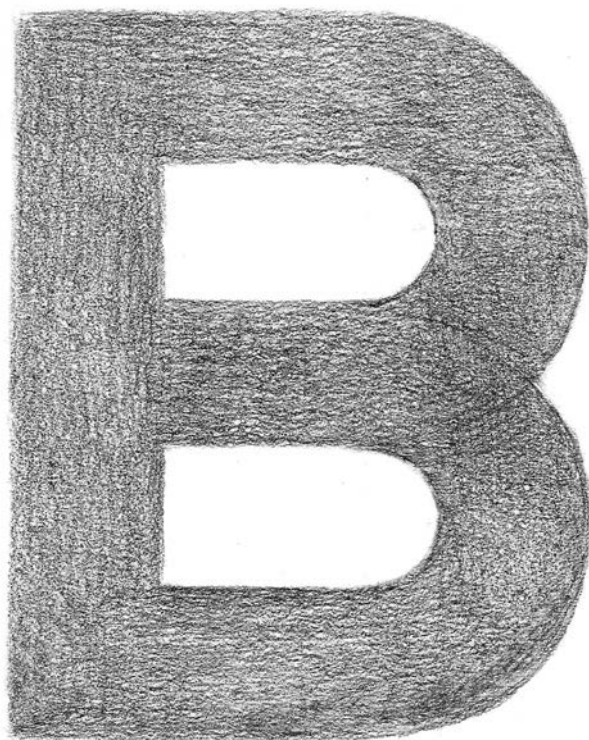
The final stage of the illusion increases the texture of the surface seen around and through the droplet. Shade soft lines with the side of the pencil tip evenly spaced outside the droplet. Then add the same texture as seen through water, magnified and slightly distorted from refraction.

how to
draw a

letter B

Steps: 5 Dif culty: ■ ■ □ □ □

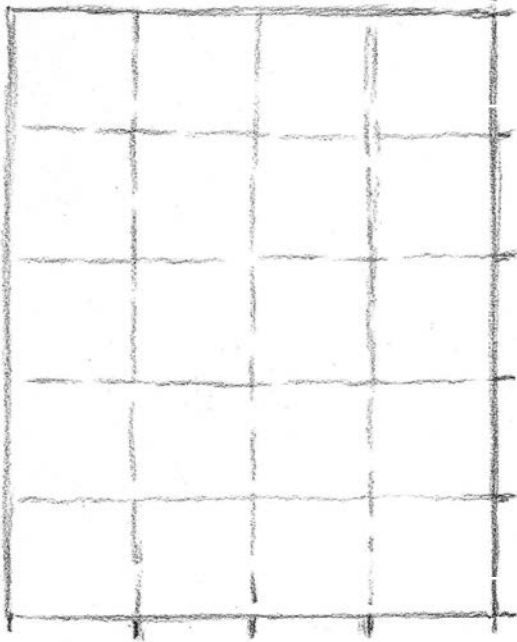
Letterforms are a great resource for practicing drawing skills. Learning one letter, like the B, prepares you to draw letters with similar interior forms and sizes like F, E, P, and so on. Master an alphabet and you'll learn pencil control and gain perceptiveness to sizes.



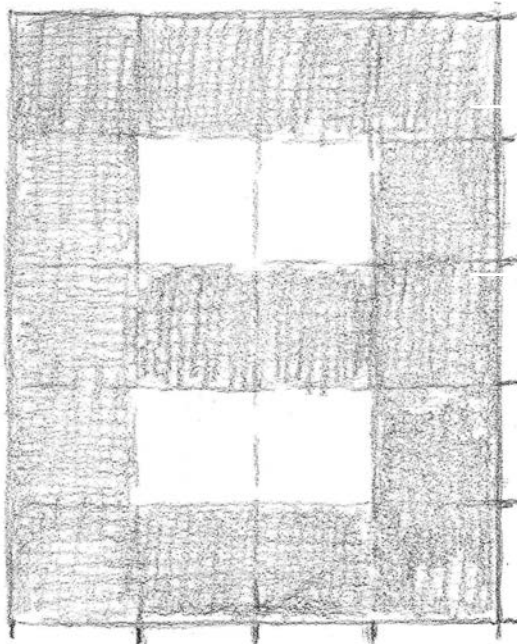


Relax and try drawing this without a ruler.

Draw this grid lightly with a 4B pencil.



The shaded area is the basic mass of the B, similar to many other letters.



- 1 Create a grid that's four squares wide by five squares tall. Begin with a horizontal line 3 inches (7.5cm) long. Without a ruler, divide it into four equal parts with the visual method.

Make a vertical line connected to one of the ends of the first line that's five of the small segments tall. Complete the grid by drawing the other sides of the rectangle and dividing the area into 20 squares.

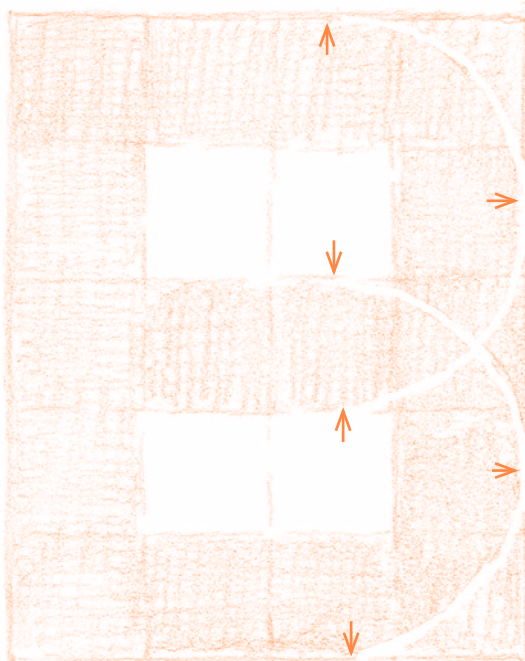
- 2 Shade in the outside ring of squares and those that cross horizontally in the middle with a light value.

The two curved parts of the B are half circles. Draw them to touch the grid where the arrows are pointing.

3

CONCEPT

Proportion is a relationship of sizes, such as height compared to width. The letter B here has a proportional relationship of 4 to 5, also written 4:5.



Turn the paper to keep the pencil perpendicular to the curved segment you are drawing.

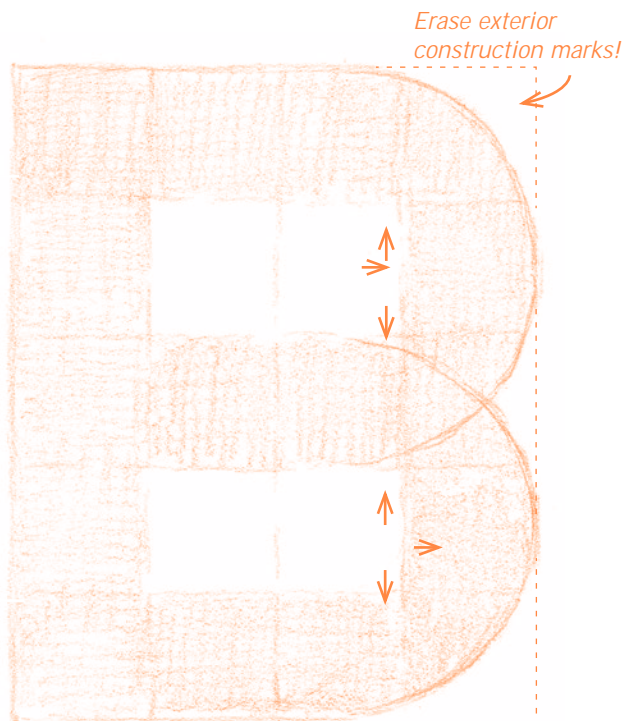
Gripping the pencil farther from the tip will keep your hand from smudging the drawing.

Erase the top and bottom corners on the right side, stopping at the curves.

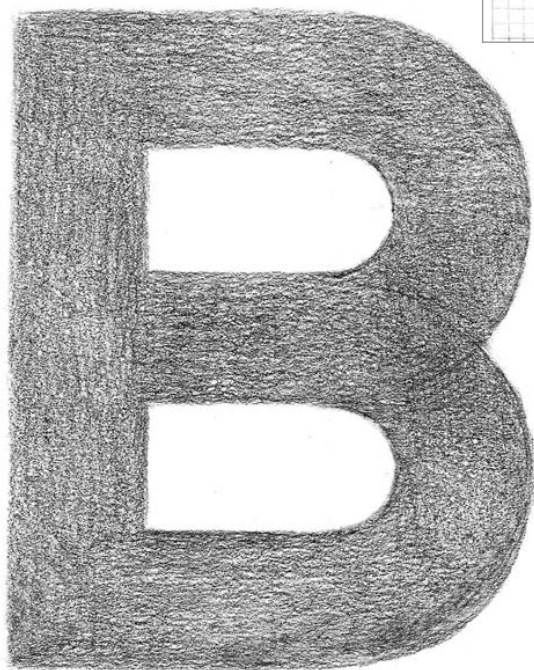
4

Erase the curved triangular shape at the outside edge between the two large half circles.

Draw the smaller half circles of the interior shapes (counters) to touch where the arrows are pointing.



Erase exterior construction marks!

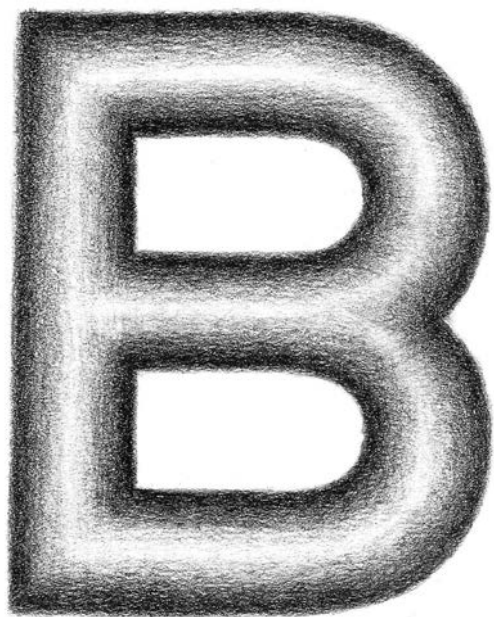


Shade with similar marks as the construction lines—curving, vertical, and straight—and they will blend together.



- 5 Shade the small triangular pieces to fill the B shape. Shade the letter to create an even tone.

Erase any visible construction lines outside the letter and clean up the edge with a kneaded eraser.



ADVANCED VARIATION

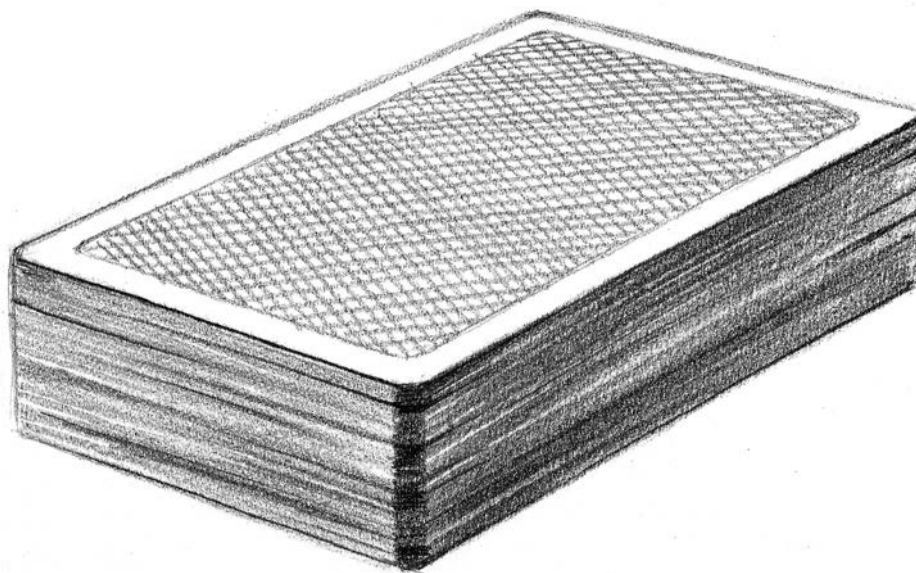
Shade the letter to give a raised and rounded look. Begin by darkening the edges, then lift off value in the middle of the entire letter-form with a pointed kneaded eraser.

If you want to practice what you've learned with another letterform, try an R using the same grid process.

deck of cards

Steps: 9 Dif culty: ■ ■ □ □ □

To draw rectangular objects, answer two questions rst: “How many sides do I see?” and “Is a corner pointing toward me?” If the answer to the rst question is “Two” or “Three,” and the answer to the second question is “Yes,” then the drawing involves two-point perspective, a method for calculating angles of a rectangle’s edges.





Draw these first lines lightly.

Imagine the front corner rests on a horizontal baseline to calculate the degrees of the angles.

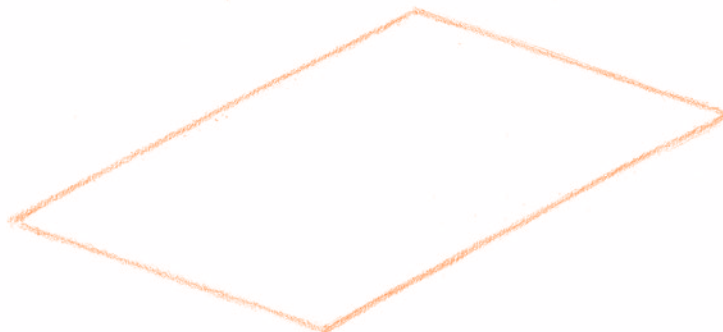
1 Though you won't need to plan a complete two-point perspective construction to draw the edges of this deck of cards, you will draw them to become closer together, or converge, as they recede into the distance.

Draw the two nearest edges that meet at the front corner. The left edge is 20 degrees and about 3 inches (7.5cm) long and the right edge is 30 degrees and 4 inches (10cm) long.

2 Draw the two far edges and make sure they're parallel to the opposite near edge. You can check this by placing a ruler 90 degrees to one of the lines while measuring the distance between the two in a couple of places.

Draw three vertical lines, each $\frac{3}{4}$ inch (2cm) long, that extend downward from the ends of the angled lines where they meet. Then connect the vertical lines with two more angled lines to form the bottom of the deck.

3

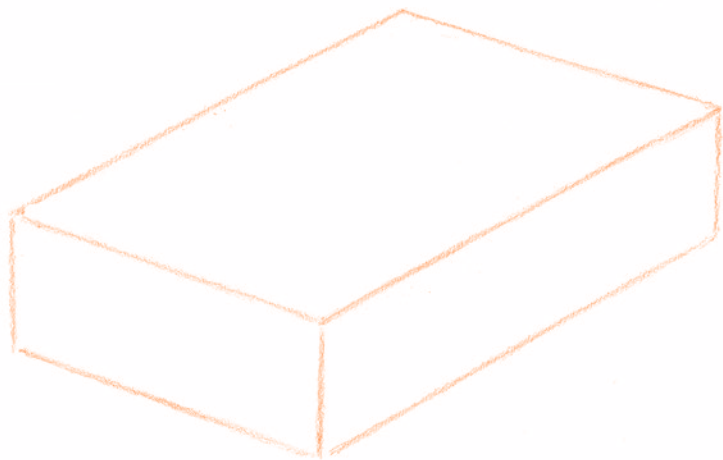


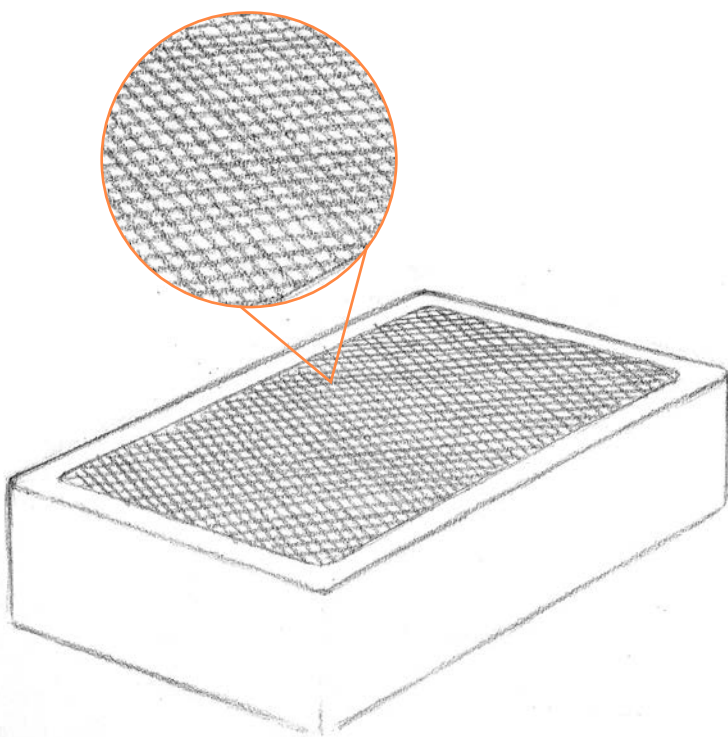
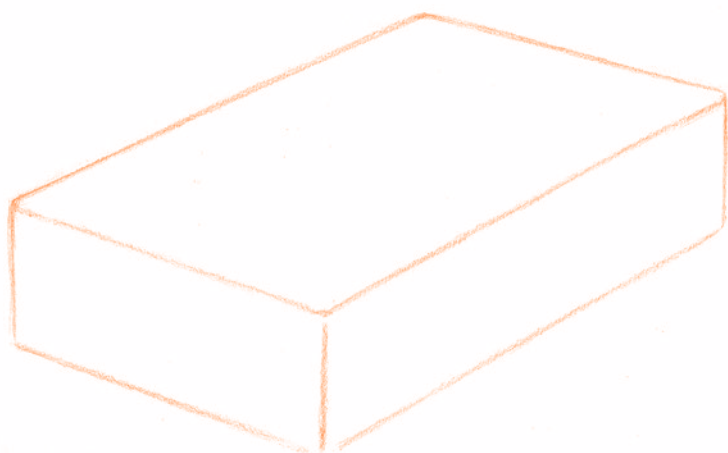
CONCEPT

Convergence occurs when two receding parallel lines seem to become closer together the farther they appear to be from the viewer.

Lighten the two far edges with a kneaded eraser. Draw them again to appear less steep. The first set of far edges was drawn to be parallel to emphasize that the revised lines are *not* parallel and angle downward from parallel at the far corner. This will ensure they converge, which is a requirement of perspective.

4





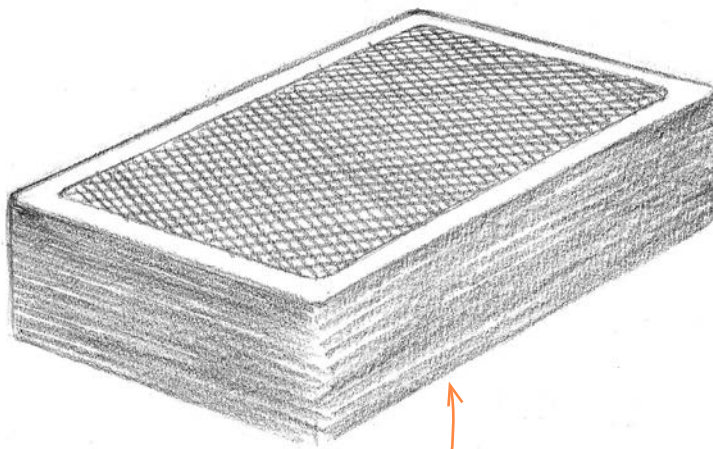
5 Draw four lines inside the top of the deck of cards that are parallel to the original outside edge. This will be the shape of the design on the back side of the top card.

Round off the outer corners.

6 Draw repeating parallel lines to shade the inside rectangle, then cross them at another angle with similar lines to create the design on the back of the card.

With the overhand grip and the side of the pencil tip, draw long shading lines that run parallel to the angled edges. Begin at the outside corners and shade inward to the near corner.

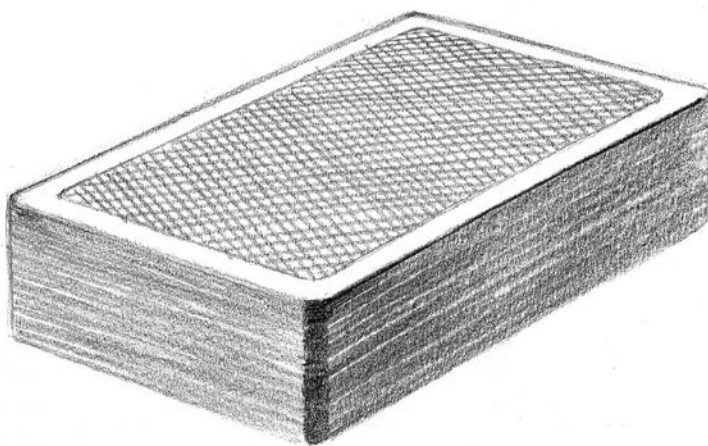
7

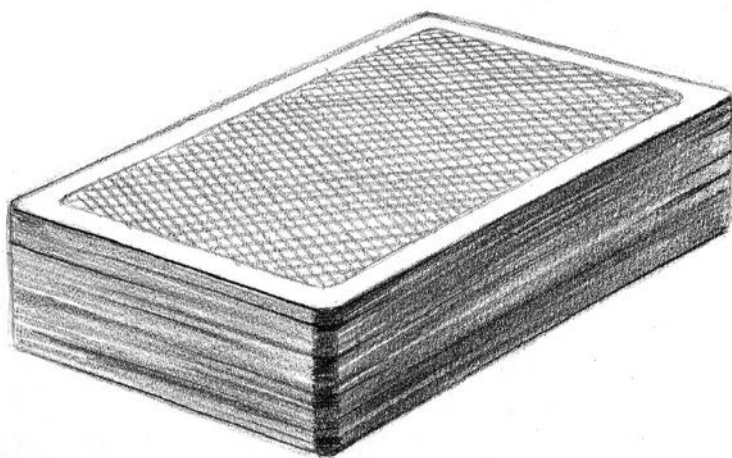


To create the texture of layers of stacked cards, don't overlap these too much.

Shade the right side with a second layer to create a shadow on this side. Then, with short horizontal strokes and pressure on the side of the pencil tip, darken the near corners of the cards.

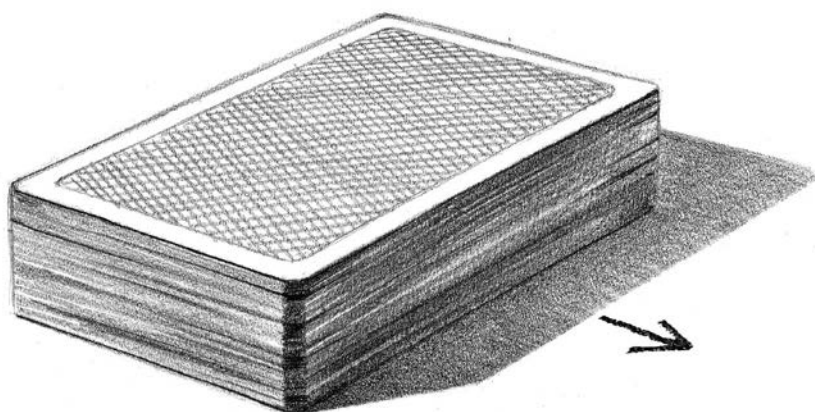
8





- 9 Add a few more shading strokes on the angled sides to create the illusion of stacked cards that are not perfectly aligned.

ADVANCED VARIATION



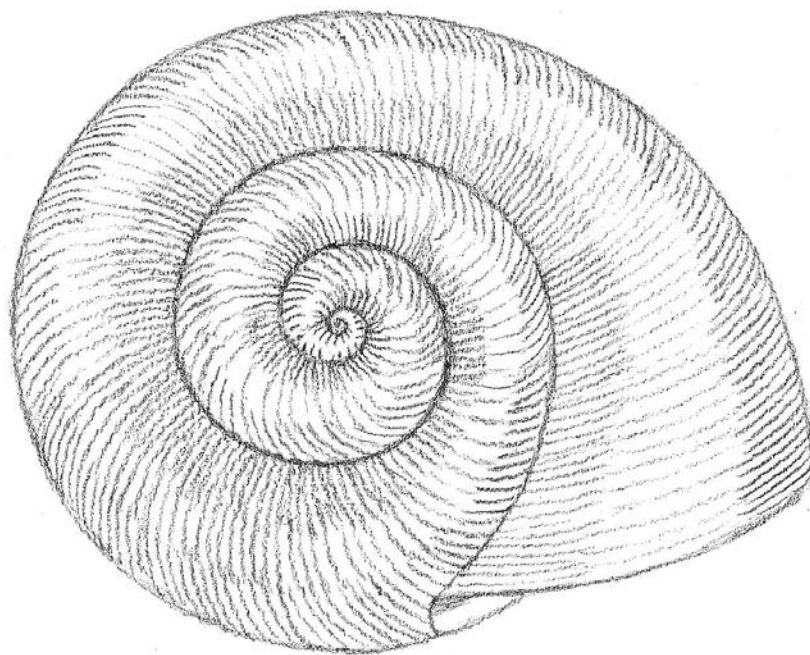
Draw the shadow shape lightly. Shade it with the side of the pencil tip with lines that run parallel to the angle of the stack to the left of the front corner.

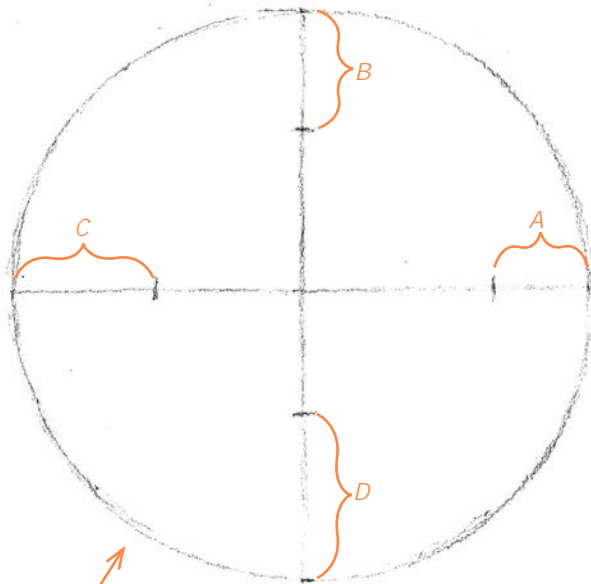
Clean up any unevenness when shading by erasing with a mask of thick paper. Lay it over the shadow against the shadow contour and, while holding it down firmly, erase along the edge with a kneaded eraser.

shell

Steps: 5 Dif culty: ■ ■ □ □ □

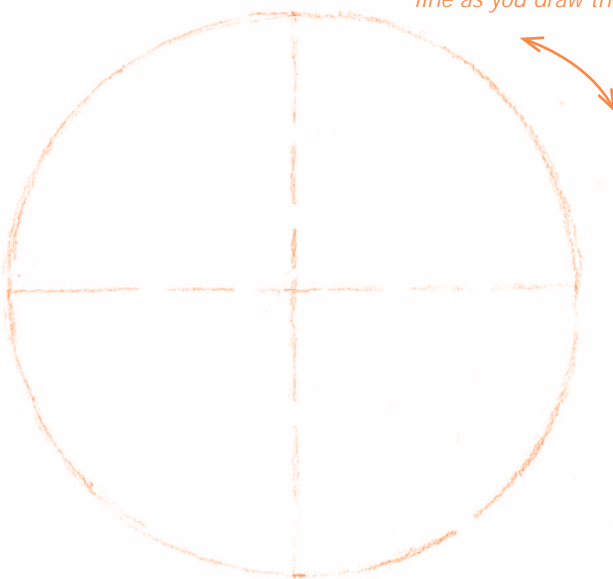
Though snails don't make playful pets, they do attract the attention of designers. The spiral growth pattern of their shells has been carved into rock and designed into jewelry for millennia. This elegant curl can also be found in the way galaxies expand, in the motion of whirlpools, and in the growth sequence of plant leaves.





Draw this construction lightly.

Turn the paper to keep the pencil perpendicular to the line as you draw the curves.



- 1 Draw a 3-inch (7.5cm) tall cross. Draw a circle whose halves meet at the ends of the lines.

Mark four places where the spiral intersects the cross: A is $\frac{1}{2}$ inch (1.25cm) long. B is $\frac{5}{8}$ inch (1.5cm) long. C is $\frac{3}{4}$ inch (2cm) long. D is $\frac{7}{8}$ inch (2.5cm) long.

- 2 Draw the right side contour of the shell that curves downward to the right, and then turns left and stops just inside the lower part of the circle.

Begin the spiral at the bottom right and draw a broken line curving upward to mark A. Continue the curving line to mark B, then C, and then D, all the way to the center point of the cross.

Erase the vertical and horizontal construction and the right side of the circle.

Refine the spiral into a smooth, continuous curl.

Add cross contour lines to develop the 3D illusion of lateral rounding. These lines curve with a little extra bend where they meet the spiral. They will be lightened and then incorporated into the shading marks of step 4 and will be reminders of the changing angle of the shell's texture.

CONCEPT

Crosshatching is a way of shading with rows or patches of parallel hatch marks that intersect at a different angle with another layer of hatch marks to create visual texture.

Draw a continuous band of short marks that curve inward from the outside contour. These lines follow the curve of the cross contour lines from step 3 and are about a third of the width of the shell chamber. Draw another band of lines, opposite the first band, that follow the full length of the spiral.

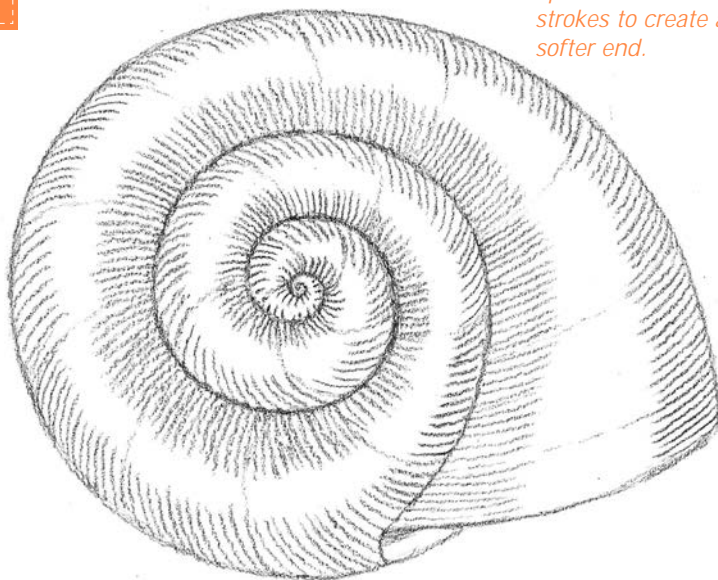
3

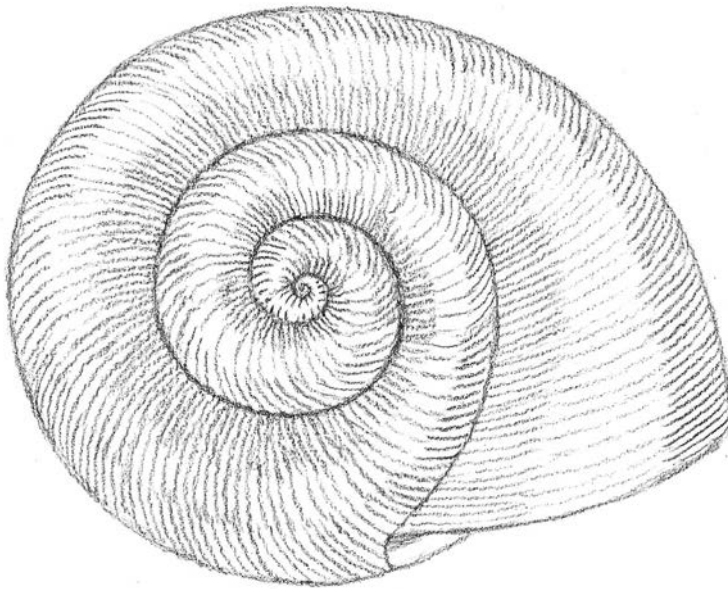
Grip the pencil farther back for lighter lines and to keep from smudging the drawing.



Lift the pencil tip up at the end of the strokes to create a softer end.

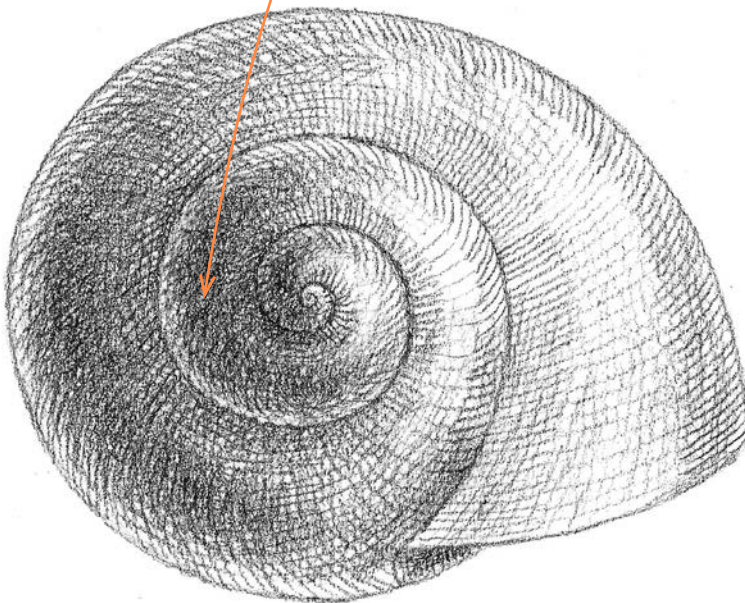
4





- 5 Draw a continuous band of light lines that cross over the highlight area.

Leave an area of reflected light in the shadow side to intensify the rounding effect.



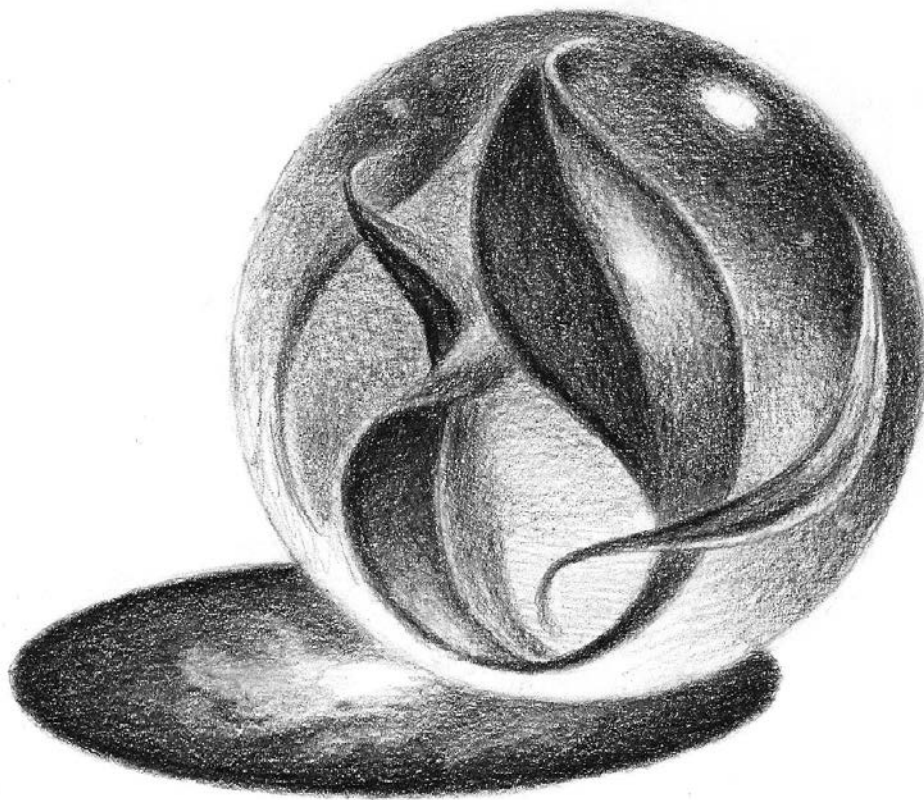
ADVANCED VARIATION

Develop the light and shadow illusion by adding more layers of crosshatching. Begin drawing some of the marks to follow the direction of the spiral at 90 degrees to the first marks. Then add more layers at the left at a 45-degree angle to the original marks. Finally, add marks to fill in any holes in the tonal gradations and touch up the right side highlight with a kneaded eraser.

marble

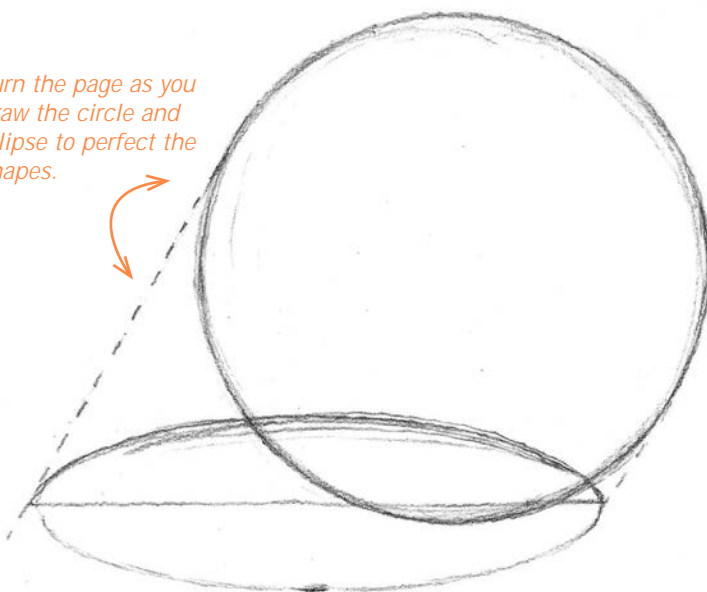
Steps: 9 Dif culty: ■ ■ ■ □ □

Cat's eye marbles are striking for the unique design of their colored glass interiors. This drawing is a celebration of these curvilinear forms, from their swirling interiors to the surrounding circle of the marble casting its elliptical shadow. Any straight line here would be out of place, except for the path of the rays of light.



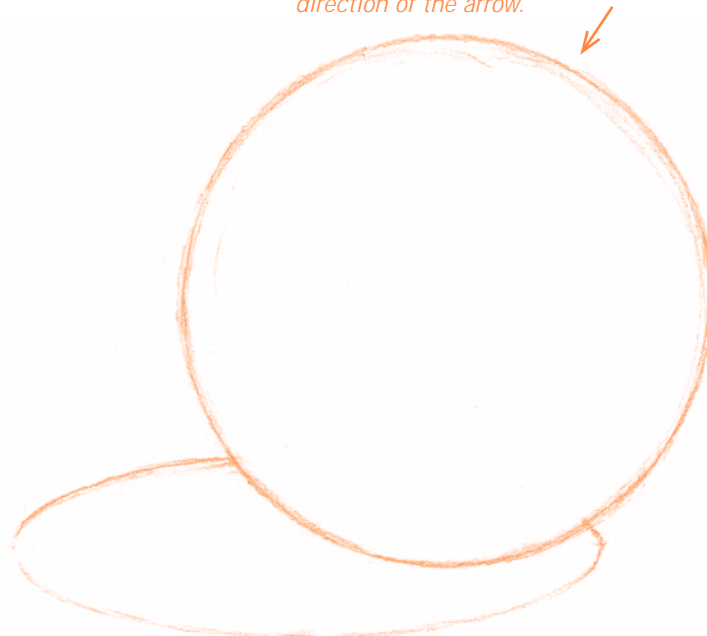


Turn the page as you draw the circle and ellipse to perfect the shapes.



Draw these first lines lightly.

The light travels here in the direction of the arrow.



- 1 Draw a circle that is about 3 inches (7.5cm) tall. Draw two dashed lines at a 45-degree angle to determine the width of the ellipse of the cast shadow. Draw the horizontal major axis of the ellipse to span the two dashed lines. Draw the curves of the ellipse to be symmetrical.

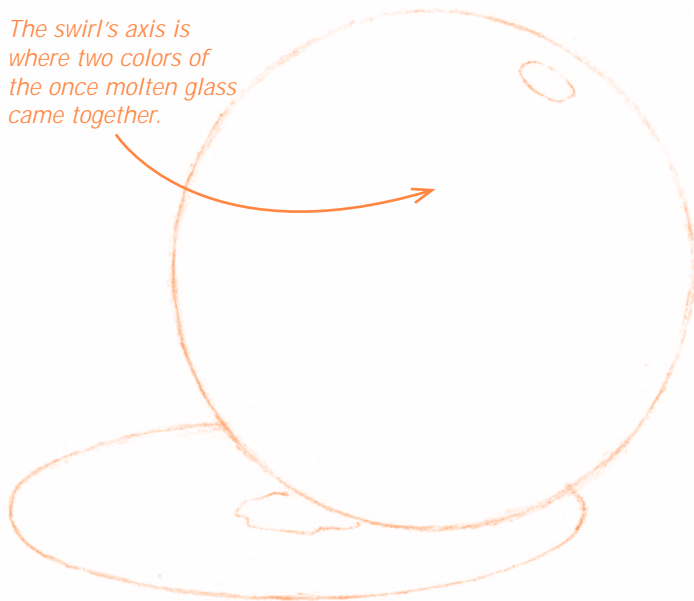
After the shape of the shadow is complete, erase the dashed lines, the major axis, and the curve of the ellipse inside the circle.

- 2 Draw a small oval where the light source creates a highlight at the top right of the circle. Draw another where the light hits the table.

Draw the swirling colored glass inside the marble. Begin with the center of the S curve, and then draw its two undulating wings.

3

The swirl's axis is where two colors of the once molten glass came together.



CONCEPT

A light source is either the sun or an artificial light that determines the shapes of the light and shadow areas of objects and their cast shadows.

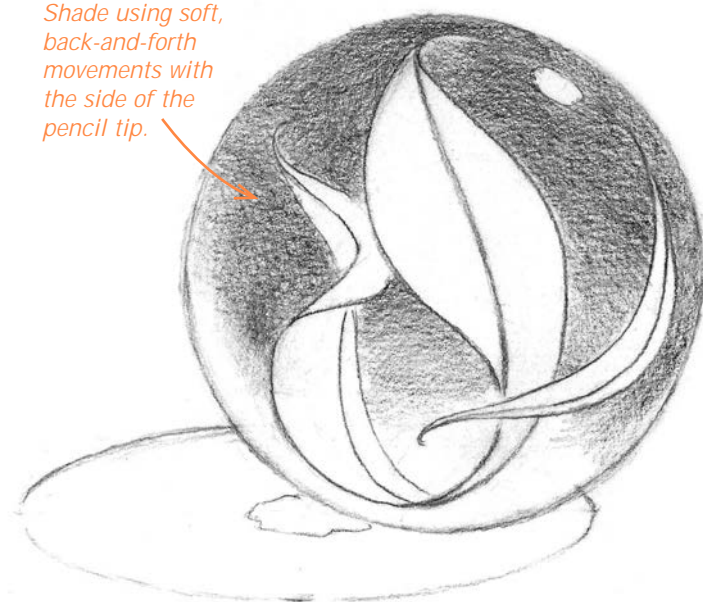
Continue drawing the swirling colored glass shape as it curves upward and to the left. Draw it to disappear behind the larger part. Overlapping parts is a key to the illusion of the interior world of the cat's eye marble.

4





Shade using soft, back-and-forth movements with the side of the pencil tip.



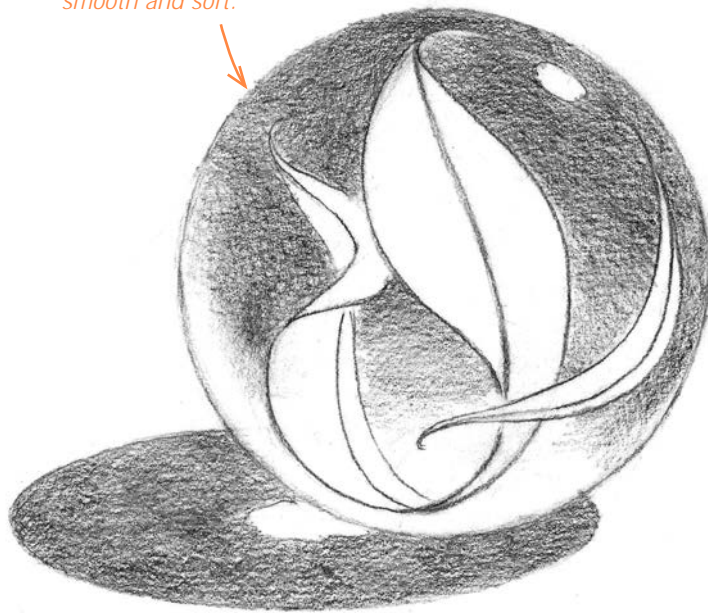
5 Complete the interior swirls by adding the thin one at the right that passes in front of the others.

6 Shade inside the circle around the highlight and the swirling forms.

Shade the ellipse and around the oval spot of light with soft, horizontal back-and-forth shading.

7

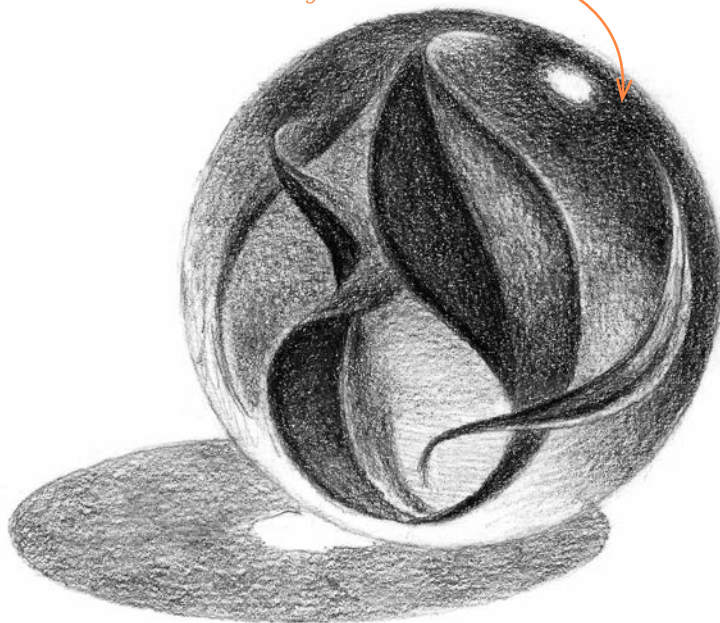
Avoid outlining the shape. Keep the edge smooth and soft.

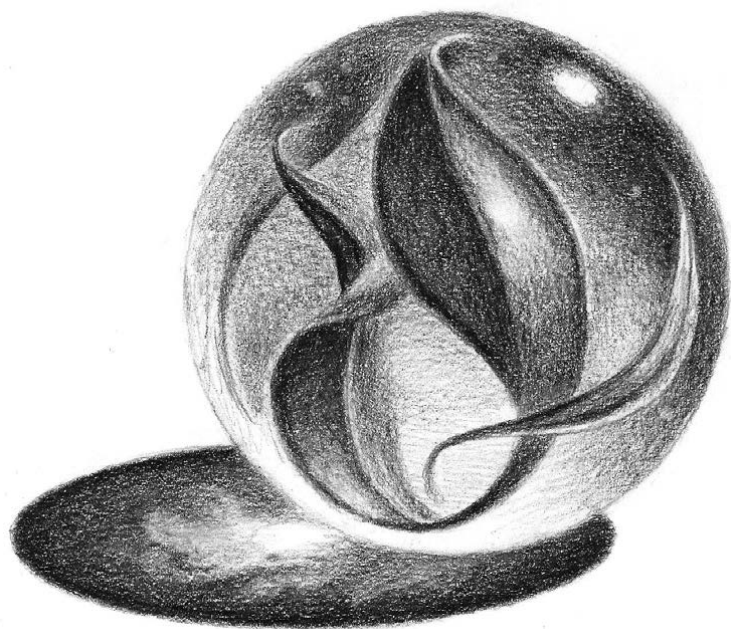


Shade the swirling forms with gradations of dark and light. Emphasize the contours with darker shading. Also, shade the upper area around the highlight darker.

8

Shading darker around a highlight makes it appear brighter.





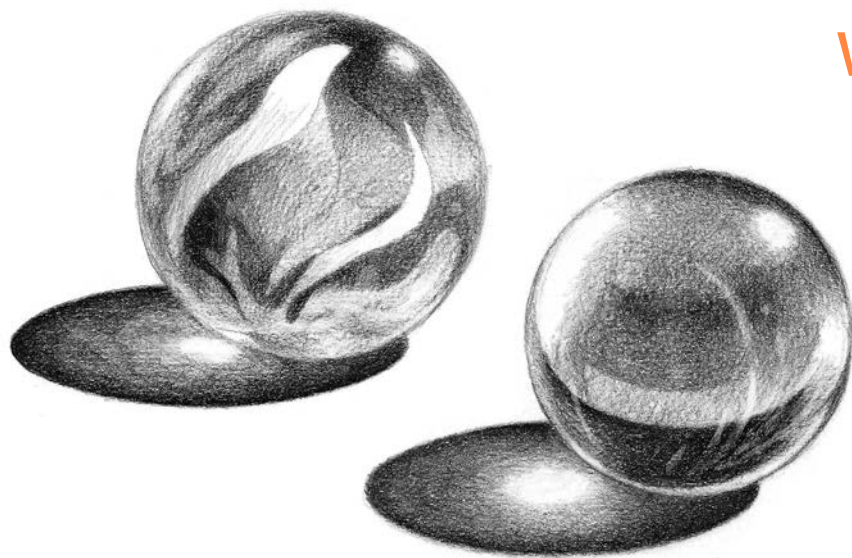
Knead the eraser when the end has become shiny with graphite.

9 Darken the ellipse at the outside contour, becoming lighter where the rays of light fall.

Shape a kneaded eraser by pinching an end of it at. Press the eraser end into the shadow area to build out the light spot and produce the effect of light passing through the marble being distorted by the colored glass.

Point the kneaded eraser to lift off small spots to create the illusion of bubbles trapped in the glass.

ADVANCED VARIATION



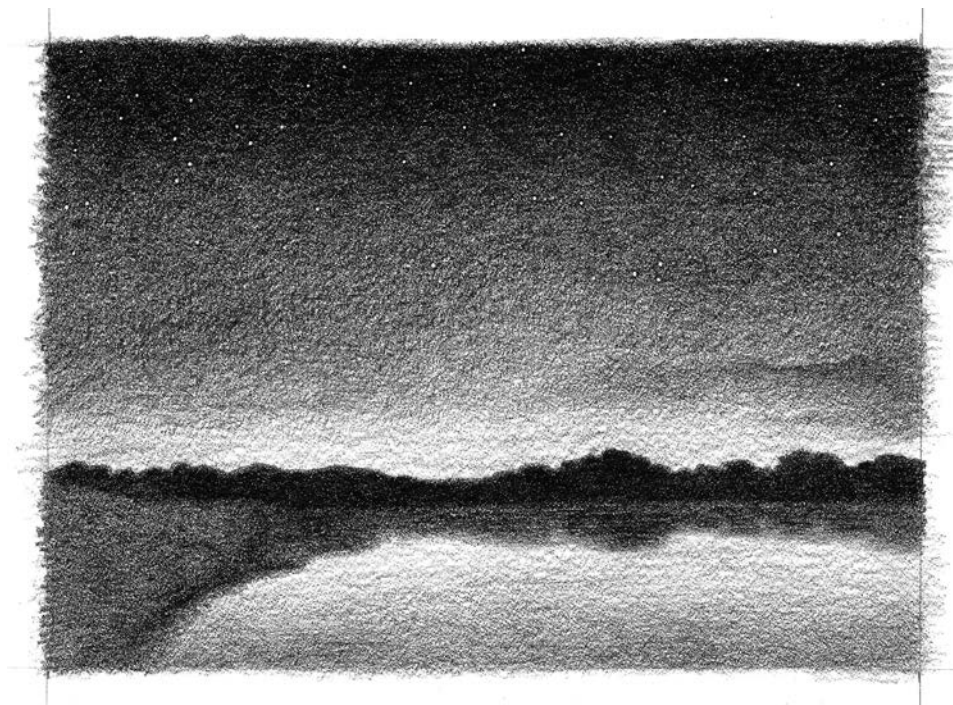
Create other marble designs using the preceding process with swirls that overlap in different ways. Look up cat's eye marbles online or find them at an antique store to help invent your own in a drawing!

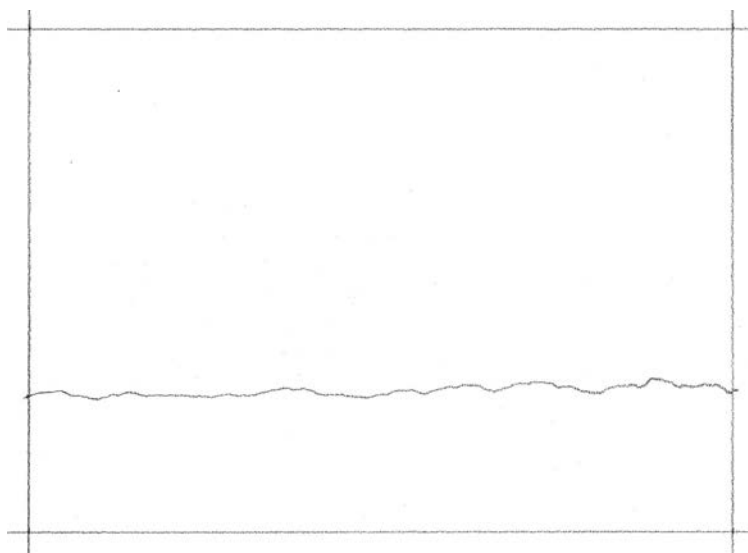
how to
draw a

night sky

Steps: 9 Difficulty: ■ ■ ■ □ □

This starry night lake scene involves very dark values made with multiple layers of shading. Soft edges and gradation are fitting for this calm and vast view, with the darkness appearing even darker from contrasting touches of white. If you find yourself wanting to alter the tree shapes, please do—you just might be familiar with night skies, too.





- 1 Draw a 5 × 7-inch (12.75cm × 17.75cm) rectangle. About 1½ inches (4cm) up from the bottom, indicate a skyline of tree forms with an irregular, bumpy contour.

Press the pen straight down firmly to create a clean, round indentation.

Make indentations in a random pattern.

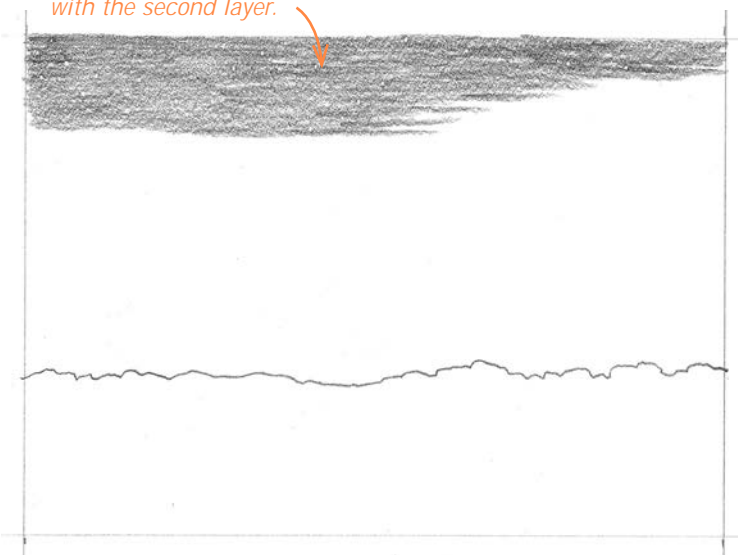


- 2 Begin creating the stars by making indentations in the sky area. To do this, first place a mat board or several pieces of copy paper beneath the drawing page. Then cover the drawing page with a piece of copy paper; you should be able to see the preceding step's lines through it. Press the tip of a ballpoint pen into the cover sheet in the pattern of stars in the sky area only.

With the side of the pencil tip, make short horizontal marks in a middle value and proceed halfway down the drawing area.

3

Try to make the value even; however, a little unevenness will be smoothed with the second layer.



CONCEPT

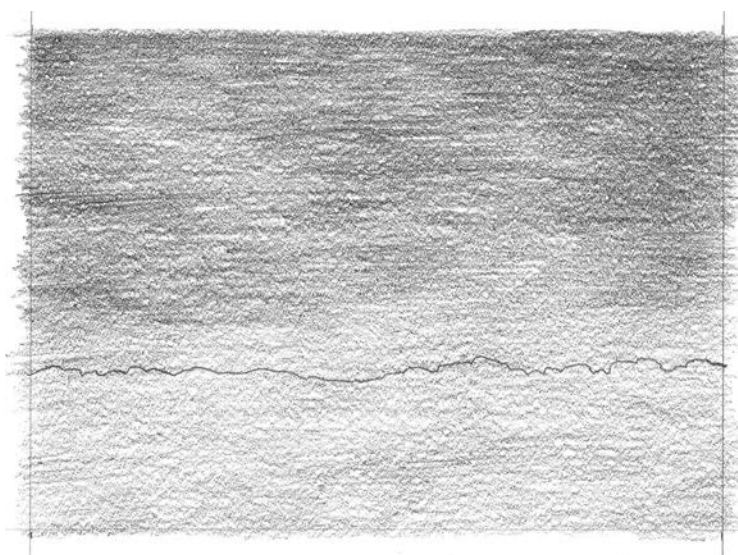
*Dark tones are best created in several **layers**. Each layer is made with smaller strokes at a slightly different angle and with more pressure.*

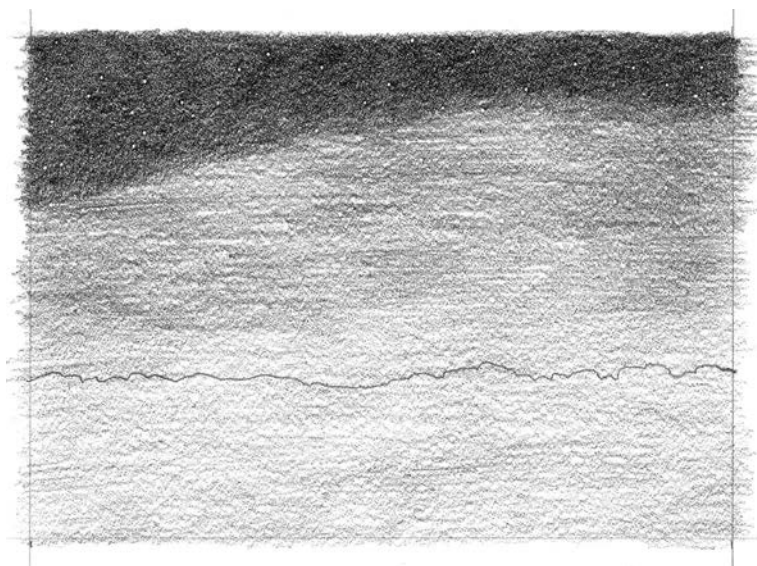
Grip the pencil about 3 inches (7.5cm) back from the tip.

To avoid smudging the shaded area, place a piece of copy paper beneath your shading hand.

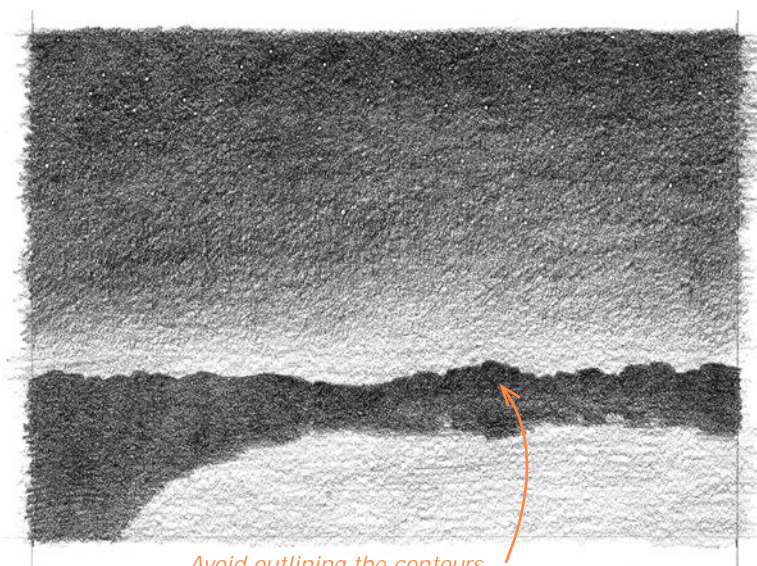
Continue shading and gradually apply less pressure so the value becomes lighter just above the horizon and all the way to the bottom. If the transition from middle to light tone is rough or abrupt, you can go back and add more shading to light patches to even the tone.

4





- 5** Begin a second layer of shading to further darken the sky. You'll start to see the stars appear. Transition this second pass to be lighter just above the horizon.

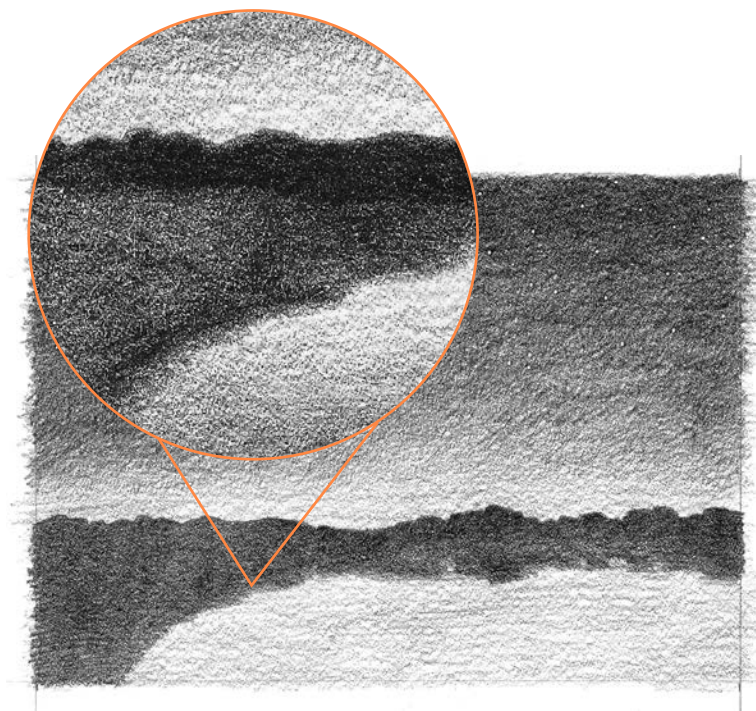


Avoid outlining the contours. Instead, gradually shade out to the finished edge.

- 6** Shade the distant tree line and lakeshore to be the darkness of the upper sky. The lower part of this thin dark area is the reflection of the trees in the lake. Being a reflection, this lower contour is a mirror image of the contour above, only softer. Where points rise up in the upper contour, they dip down in the lower contour.

Shade a third layer over the tree line at the left. With small back-and-forth movements, refine the top edge of the tree line and then the contour of the lower rolling hills. Also add some softer dark tone at the water's edge.

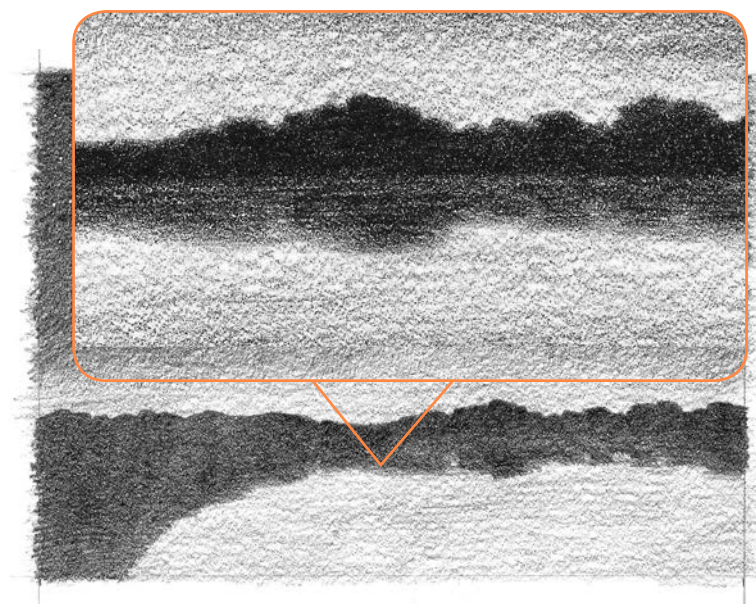
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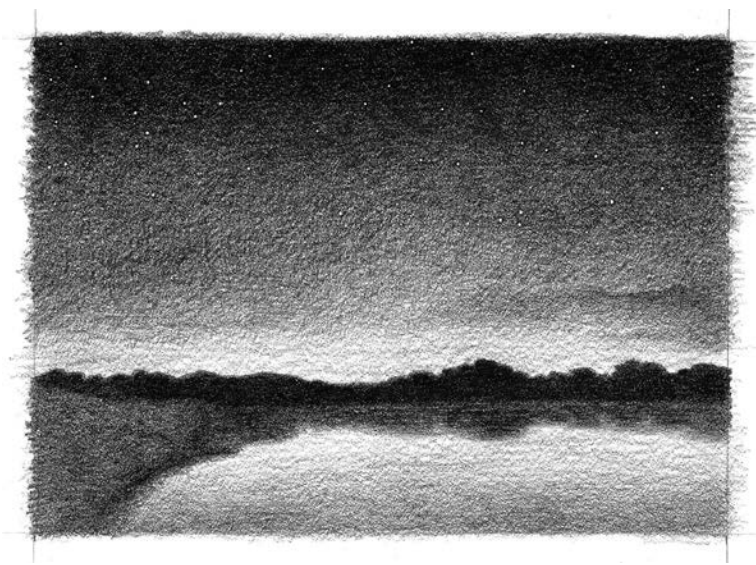


Shade the tree line with the same dark tone from the preceding step. Begin halfway between the top and bottom contours of this thin area and work your way to the upper contour. Refine it to be dark with a soft edge.

8

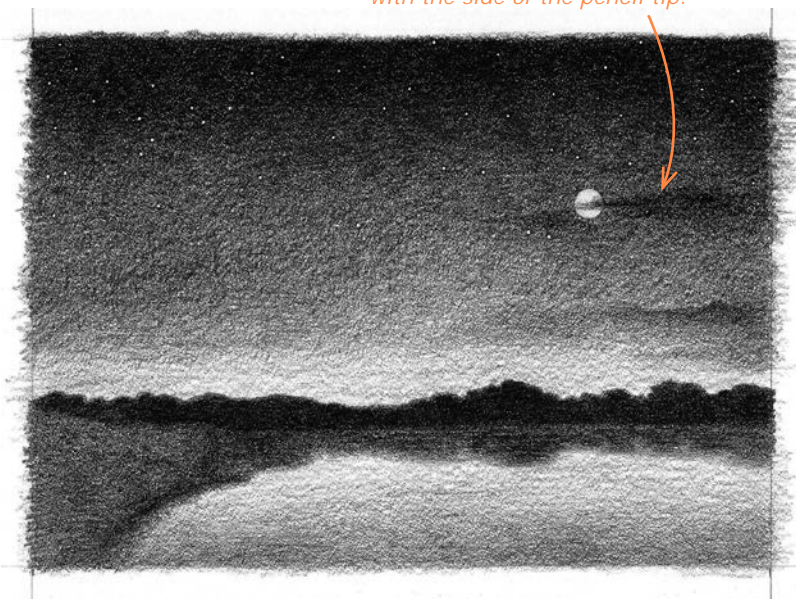
Drag the sharp, flattened edge of a kneaded eraser horizontally across the reflection area. This will create a subtle effect of the twilight sky reflecting on the water.





- 9 Darken the upper sky to the darkest value of the tree line. Carefully transition this value into the medium value below it.

Shade the wispy texture of clouds with the side of the pencil tip.



ADVANCED VARIATION

To create a full moon, use a hole punch to cut out a circle mask in a heavy piece of paper. Lay the paper down on the drawing so the hole is on the right side and halfway between the horizon and the top edge. Hold the paper down with your nondrawing hand and rub a kneaded eraser over the hole firmly and in different directions. After removing the paper, shade the clouds that are drifting across the moon.

how to
draw a

fork

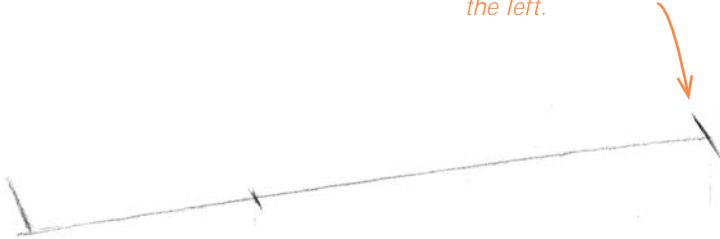
Steps: 5 Difficulty: ■ ■ ■ □ □

This simple utensil, the fork, is designed to fit the hand at one end and the mouth at the other. The curvilinear form of this fork has an angle that can be described with a straight line, but the beauty is in the repetition of its tines, the taper of its handle, and its shiny surface. It seems to say, "Pick me up!"





The top end of this line angles slightly more to the left.



- 1 Draw the angled construction line 7 inches (17.75cm) long. The angle at the left is the end of the tines; the middle mark is where the handle transitions to the curved base of the tines; and the mark at the far right describes the angle of the head of the handle.

Far contour



Near contour



- 2 Draw the curving midline that begins at the middle point of the tines and ends at the center of the head of the handle. Draw the nearer contour to be farther from the centerline, while the farther contour is closer to it.

Draw the faint angled line at the base of the tines and draw the space between the tines. Turn the page with the tines pointing downward to draw the small curves at their base.

3



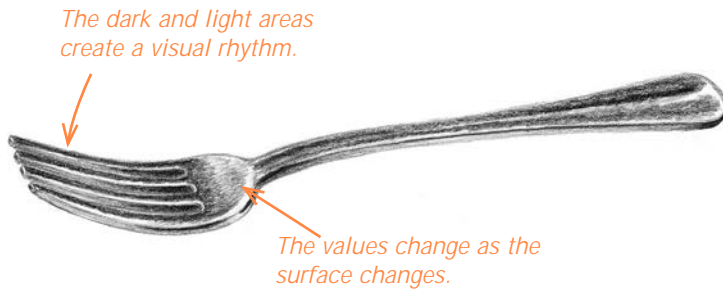
CONCEPT

*The **midline** divides symmetrical objects in half, following the profile and its hills and valleys. It becomes more pronounced the farther to the side the viewer's point of view is.*

Carefully draw the contour of the thickness of the fork. It follows parallel to the near edge, and then disappears as it curves behind at the head and at the middle transition. The ends of the tines are small parallelograms. Shade the thickness at the side of the tines, at the base, and at the head of the handle. Add extra shading to the base of the tines.

4





- 5** Shade the top surface of the tines dark, leaving the lower edges white. Do the same on the handle. Intensify the dark shading of the reflections on the side.



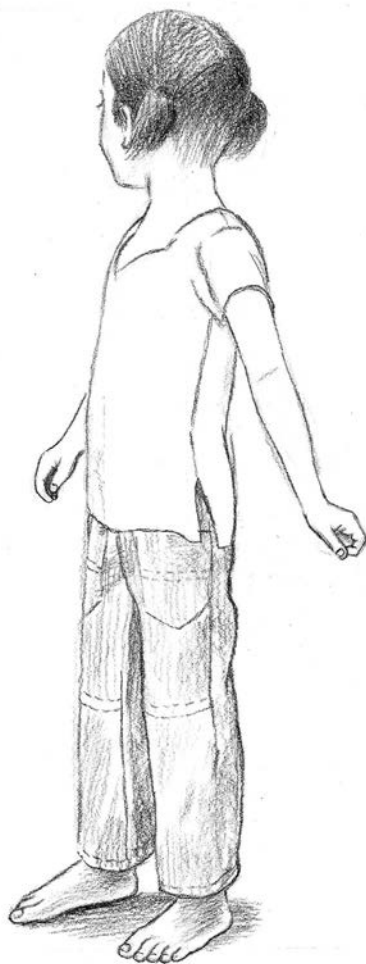
ADVANCED VARIATION

Add a soft shadow under the fork. It's darker where the fork touches the surface underneath and grows fainter where the handle and tines curve away from the surface.

standing figure

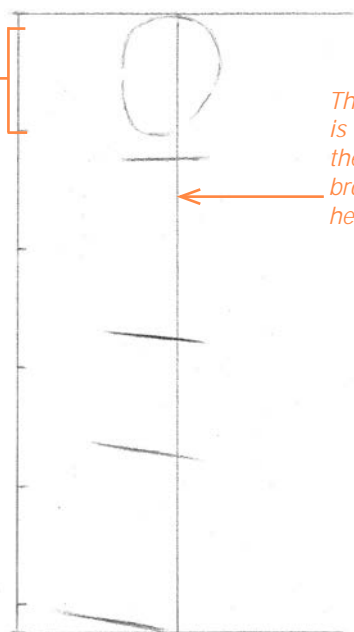
Steps: 9 Dif culty: ■ ■ ■ □ □

The human form is a good subject for studying proportion. The head is often used as a measuring increment to correctly size the other parts of the body. This little girl is just over five heads tall and has childlike proportions—her head is much larger in relation to the body than an adult's would be.



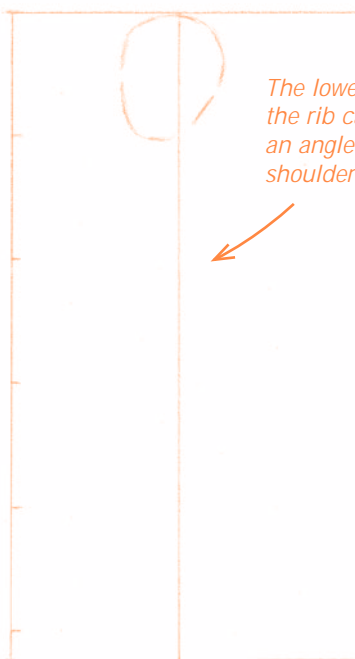


Begin any standing figure drawing by observing how many heads tall the subject is.



This standard is the height of the entire figure broken into head height segments.

The lower parts of the rib cage follow an angle like the shoulders do.



- 1 Draw two vertical lines, each $8\frac{1}{4}$ inches (21cm) tall and 2 inches (5cm) apart.

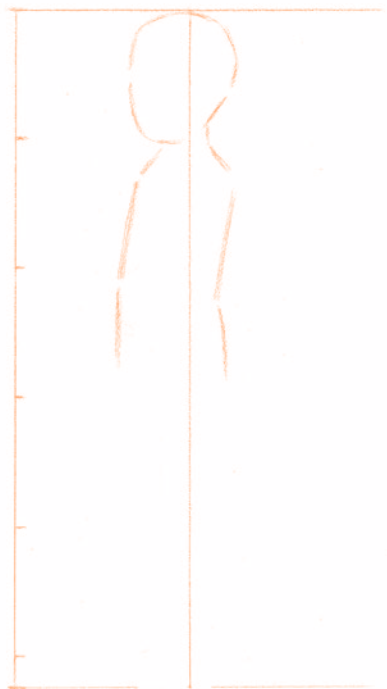
Divide the left line into increments of the figure's head height ($1\frac{1}{2}$ inches/4cm) starting at the top; there will be a little remainder at the bottom.

The line to the right marks the figure's center of balance. Draw the rough outline of the head and the angles of the shoulders, hips, knees, and feet in relation to the head.

- 2 Rough in the contours of the torso and hips with a broken line. The stomach swells away from the center of balance, while the shoulders lean back and the arm stretches away from the center of balance. The standing figure is a series of bulging, flexing, and arching back and forth across the center of balance.

Rough in the contours of the legs and feet. Indicate the change in direction and the main shape without adding details. As you rough in forms, think, *What is the least amount of lines that can describe the main form?*

3



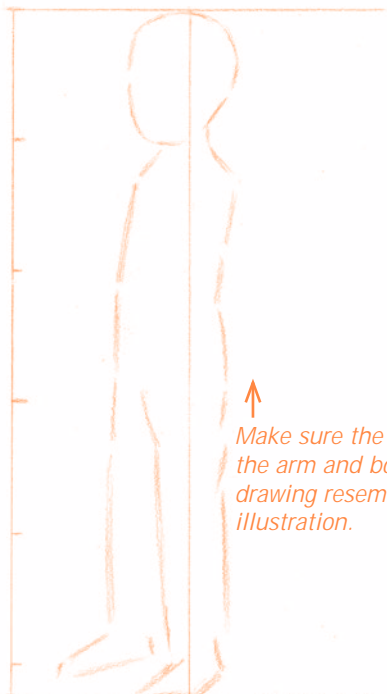
CONCEPT

Comparing measurements is essential to avoid distorting natural proportions. Use the measurement of a small part of an object or figure to determine the length of its other parts.

The arrow indicates the position of the hand at the right, found by measuring three heads down from the top of the head and one head height out from the center of balance.

4

The hand at the left begins just below the center of the third head height down on the standard and is one head height out from the center of balance.

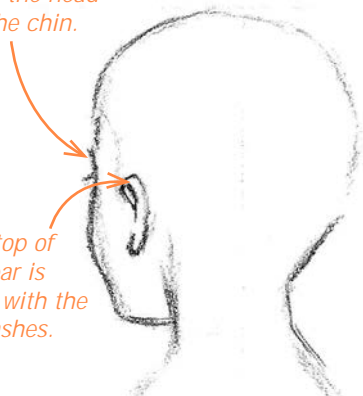


↑
Make sure the shape between the arm and body of your drawing resembles the illustration.



The eye is mid-way between the top of the head and the chin.

The top of the ear is level with the eyelashes.



Create the hair's part by shading the hair away from it.

Use the side of the tip of the pencil to create soft strokes.

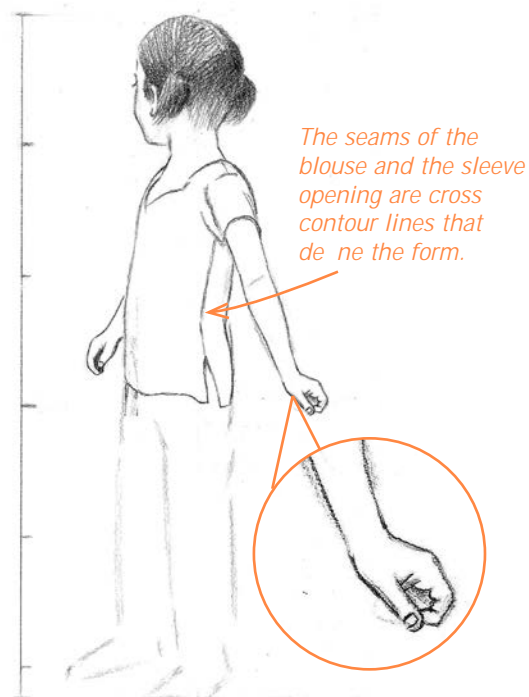
5 Rub a kneaded eraser over the lines of the figure to lighten them. Wipe any remaining eraser dust off with a paper towel.

Refine the contours of the face with soft lines made with the side of the pencil tip. Use more of the tip to draw the small curved line of the eyelashes. Also draw the lines of the neck, but leave the back of the head light where the hair will be added.

6 Shade the hair with strokes that follow the arrows. Draw the pigtails with light strokes, then add darker shading. Shade just above the ear and the back of the head to further soften some of the repeating lines and to create the illusion of a light source at the upper left. Draw the contours of the neck and upper blouse.

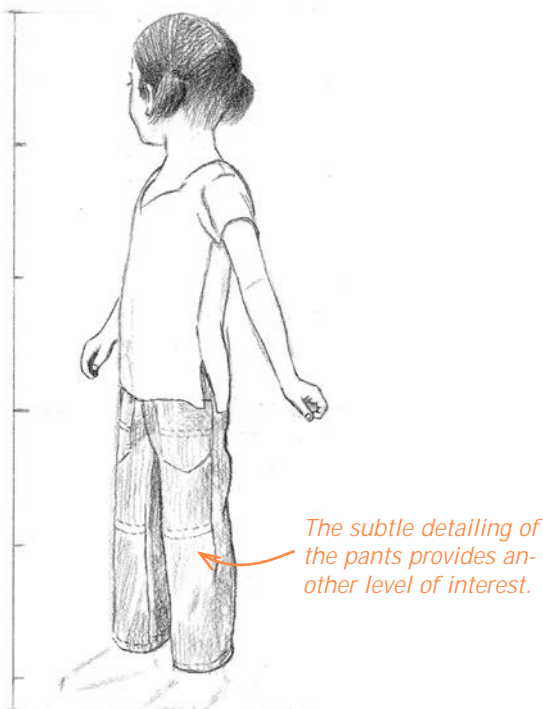
Draw the contours of the chest, blouse, arms, and hands. Notice where the lines appear dark, fine, or faint, or are broken. Dark lines describe extreme changes, turning, and crevices. Fine lines describe elegant curves and details. Faint lines describe soft or shaded parts. Breaks in lines create a lighter feel or help simplify complex areas like the face and hands.

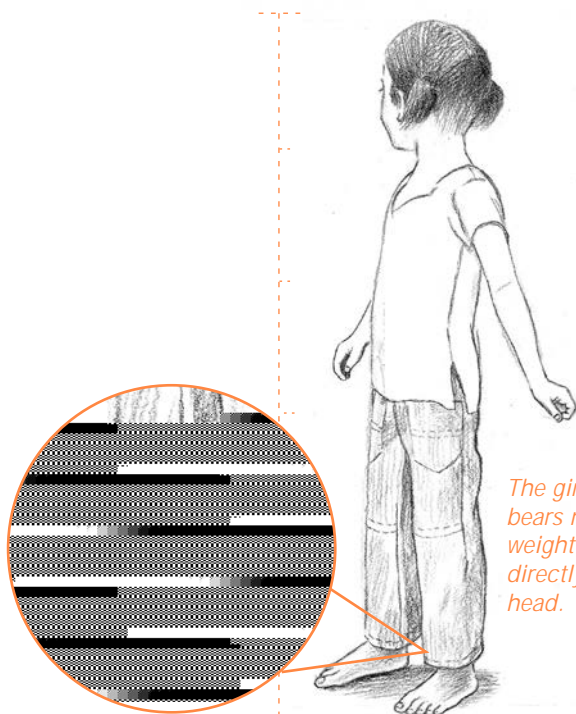
7



Draw the curving contour of the pants. Add the seams and stitching with broken lines that follow the cylindrical forms of the legs. Shade the right side with soft vertical strokes.

8





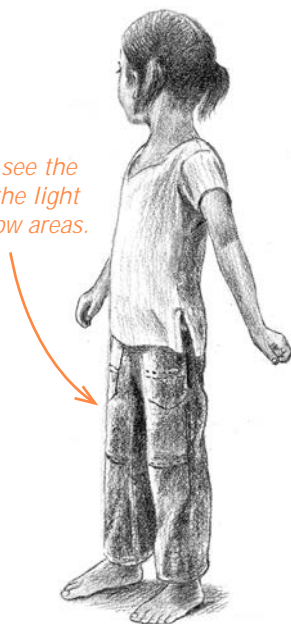
The girl's left foot bears most of her weight and is aligned directly below her head.

- 9 Draw the contours of the feet and toes light at first, and then define them more with the pencil tip. Look at your progress at arm's length and, if necessary, erase and revise the toes.

Erase the standard.

ADVANCED VARIATION

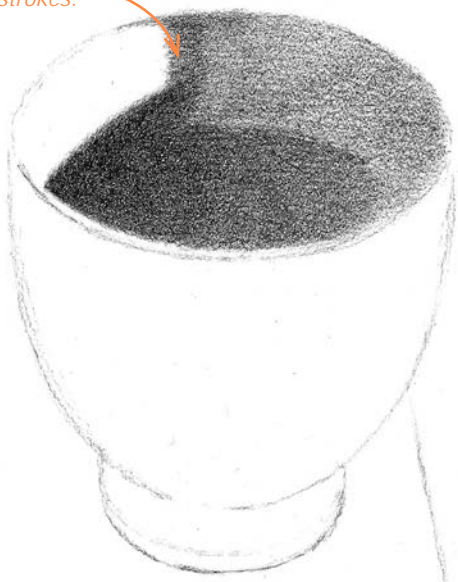
Squint to see the effect of the light and shadow areas.



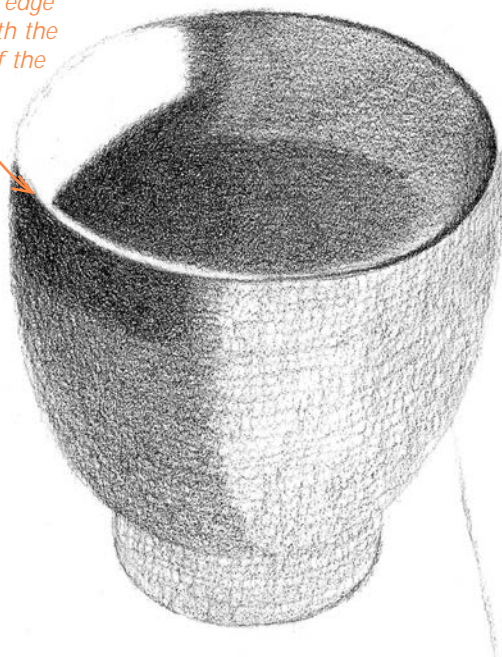
Develop the overall soft tone of the flesh and increase the richness of the shadows. The darkest parts are grouped on the near side and at the back of the head. Develop the different textures and values of the blouse and pants. Cross-hatching creates a unifying shadow at the feet.



Shade with short, overlapping, back-and-forth strokes.



The shadow's transition edge curves with the contour of the cup.



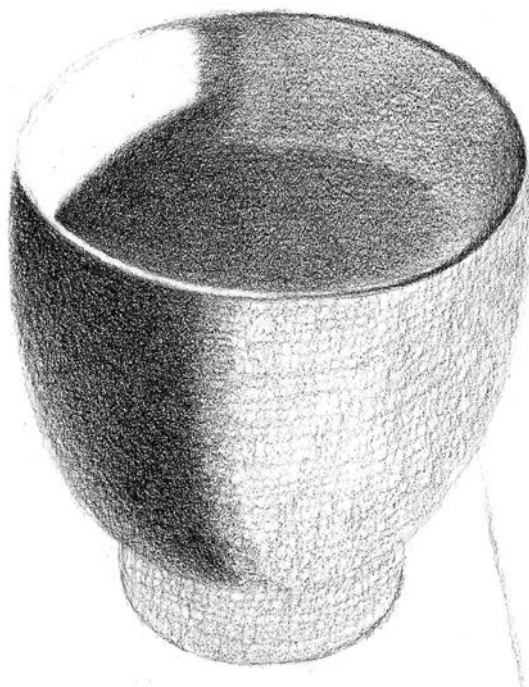
5 Shade the area to the right of the vertical transition lighter than the lower area, yet close in value.

6 Shade the entire side of the cup with soft vertical strokes and then short cross contour strokes to create a 30 percent value base tone. Shade a second layer to create the left-side shadow shape, then begin a third, darker layer (visible at the rim, but incomplete) to create an 80 percent value.

Apply a dark shade to the interior of the right part of the rim.

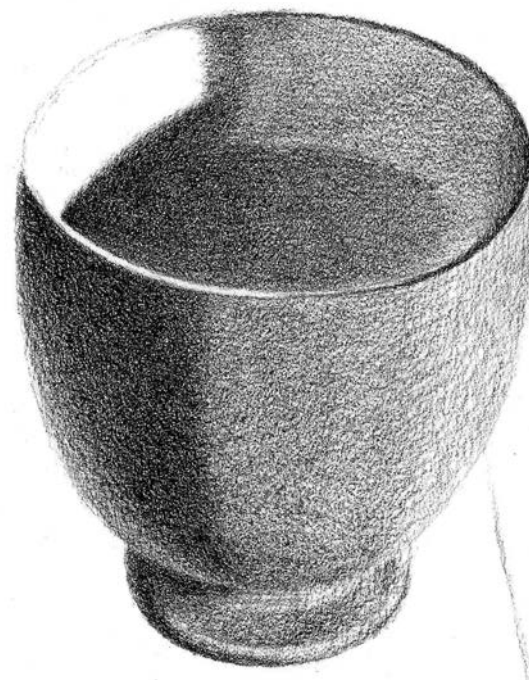
As you shade the shadowed side of the cup, allow the area at the lower left edge to be lighter to create the illusion of light reflected from the table.

7



Shade the foot with a layered process like the side of the cup, first covering the entire area. The lighter areas are created in the second layer by not shading midtone there. Darken the shadow in the third layer.

8

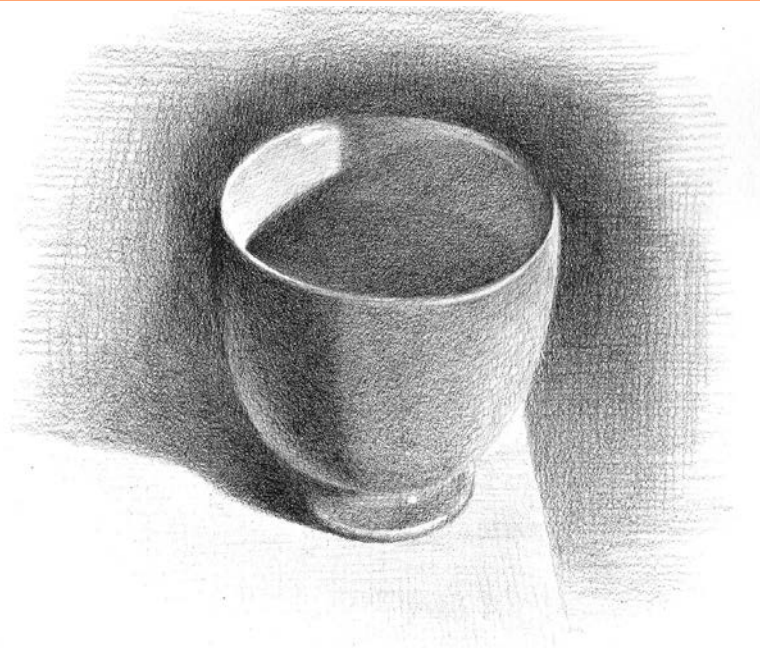




9 Create the highlight to the left of the interior vertical transition by shading the left area a 10 percent value, then lift off the horizontal teardrop-shaped highlight with a kneaded eraser.

Lift off the long highlight below the rim at the right. Then lift off the dot highlight at the recess of the foot and the highlight along the curving outer edge.

Shade the upper right area of the interior to continue the diagonal curve to the rim.



ADVANCED VARIATION

Shade the background, first with long, horizontal strokes with the side of the pencil tip and then with layers of darker, finer vertical strokes. Shade the table a 20 percent value with an HB pencil.

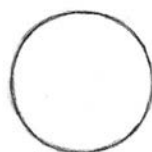
how to
draw a

dog (3/4 view)

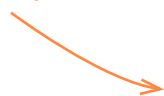
Steps: 9 Dif culty: ☒ ☒ ☒ ☒ ☐

This drawing presents the dynamic view of a dog from the front and side simultaneously, in three-quarter view. This, along with overlapping of the back with the chest, and rear leg with foreleg, helps establish the illusion of depth. The reward, as you will see, is visual excitement.





Draw the construction marks lightly—they will be erased later.



Draw the shape contours with broken lines.



- 1 Construct the dog's head with a lightly drawn circle, about $1\frac{1}{2}$ inches (4cm) in diameter. Use this as a unit for figuring the entire height of the dog, which is about four and a third heads (circles) tall. Make four construction marks below the circle.

- 2 Continue constructing the head by using broken lines to avoid details while keeping it simple and blocky. Draw the general shape of the muzzle at the lower left of the circle. Construct the ear with a triangle and add two lines for the neck, as shown.

The shoulders hide much of the back and the hind end appears to curve right out of the neck, which is extreme, but possible with three-quarter view. Draw the two curving lines to the right of the neck and the two lines for the chest at the lower left. The width of the circle and triangle together should be equal to the width of the tail end.

3



The tail construction is made of two curved lines that point back to the head. The outside of the dog's right foreleg is straight and angled while the inside is slightly curved where muscles attach to the bones. Block in the foot also.

4





*The lower leg
is vertical.*



5 Block in the dog's left fore-leg and notice that the right contour is vertical. Draw a horizontal construction line to prepare for the placement of the rear feet in the next step. The width of the line to the right is the same as the diameter of the construction circle for the head.

6 The dog's left rear leg is a combination of gentle curves and straight parts due to muscle and bone. Generally, the upper part of all the legs is muscular and the lower part is bony. The belly line curves up and meets the leg. This leg looks compressed and narrow because it is viewed from the front.

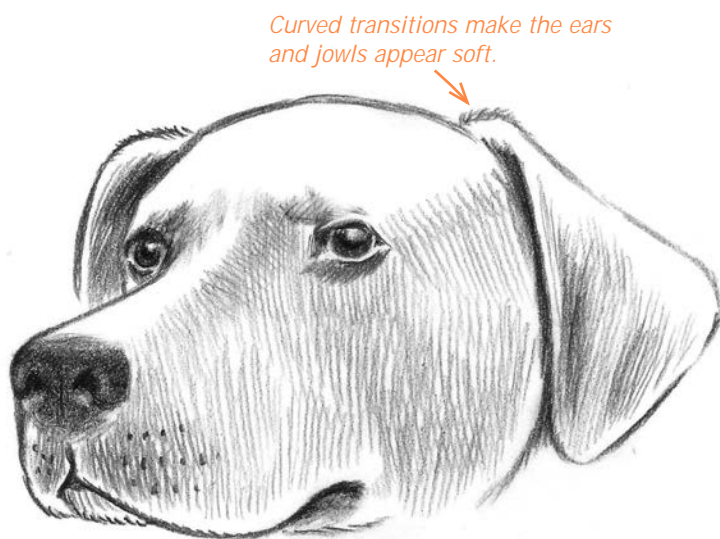
The sloping interior lines of the chest and the diagonal lines of the dog's right rear leg create depth and add contrast to the previous vertical lines. The slight curve of these lines and the overlap of the rear area by the front create volume, depth, and interest.

7



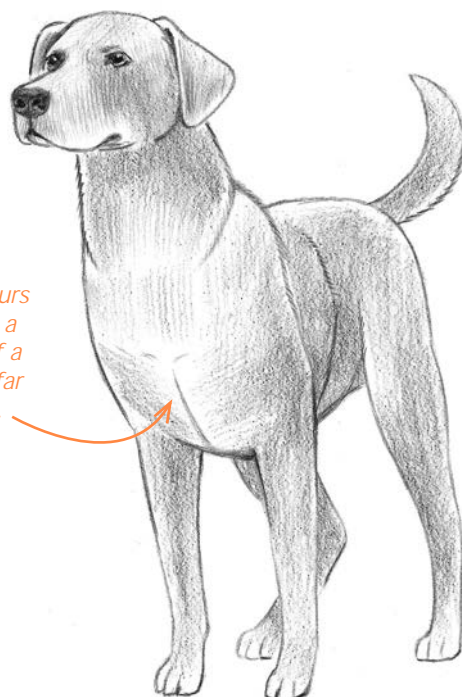
Draw the features of the face. The broken contours keep the eye from looking too heavy or flat. The eyes should be level with the ears and nostrils. Shade the muzzle and the undersides of the ears.

8



Curved transitions make the ears and jowls appear soft.

Use a kneaded eraser to lift off highlights of the nose and eyes.



Cross contours show where a transition of a near and a far area occurs.

- 9 Refine the contours by connecting the blocked-in lines. Draw the cross contour lines of the back and midsection to emphasize the rounding of these areas. Refine the feet. Erase any visible construction marks. Cover the body with directional shading that is darker where parts turn to the right shadow side or under.

CONCEPT

Three-quarter view is often used for portraits. More dynamic than a "mug shot," it shows off the front and the side simultaneously.

ADVANCED VARIATION



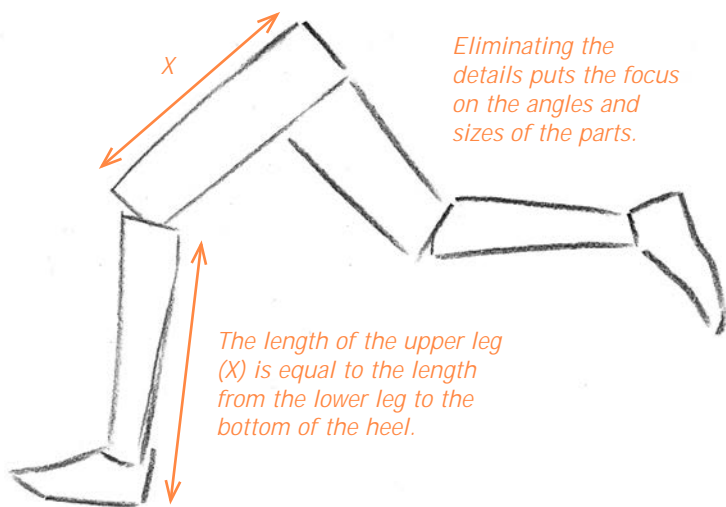
Change the direction of the shading lines, and in some places, layer them to create darker values. Point a kneaded eraser to lift off highlights of the eyes and nose.

runner

Steps: 9 Difficulty: ■ ■ ■ ■ □

Running is all about the body's lung capacity and ability to oxygenate the blood. To the artist, however, a runner displays greater asymmetry and anticipation of movement compared to the standing figure. The complexities of the human form are more easily understood by abstracting the figure with combinations of 2D and 3D basic shapes.

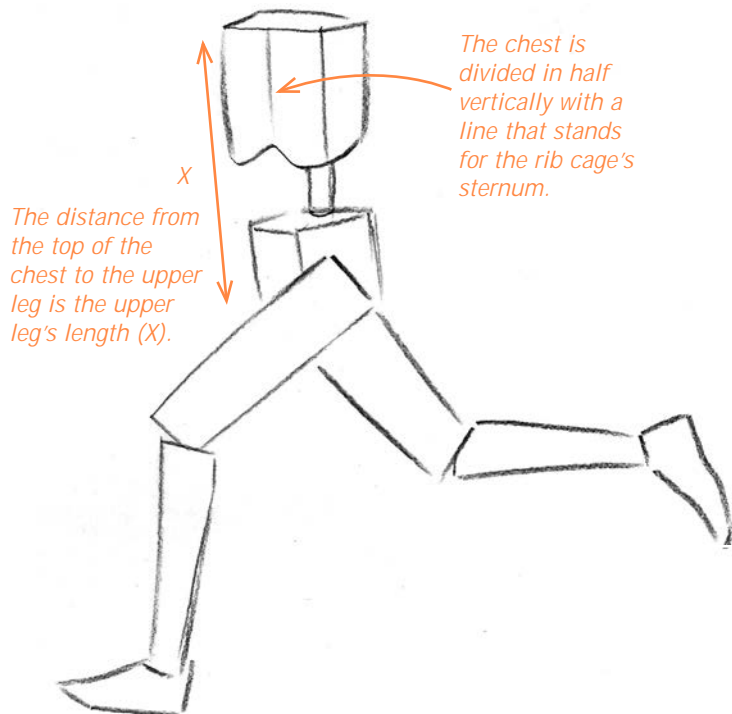




Eliminating the details puts the focus on the angles and sizes of the parts.

The length of the upper leg (X) is equal to the length from the lower leg to the bottom of the heel.

- 1 Translate the upper legs as tapering quadrilaterals and use curved triangular shapes for the feet. The length of the upper leg ($X = 2\frac{1}{2}$ inches/6.25cm) will be used throughout the drawing to determine the sizes of other parts.



The chest is divided in half vertically with a line that stands for the rib cage's sternum.

The distance from the top of the chest to the upper leg is the upper leg's length (X).

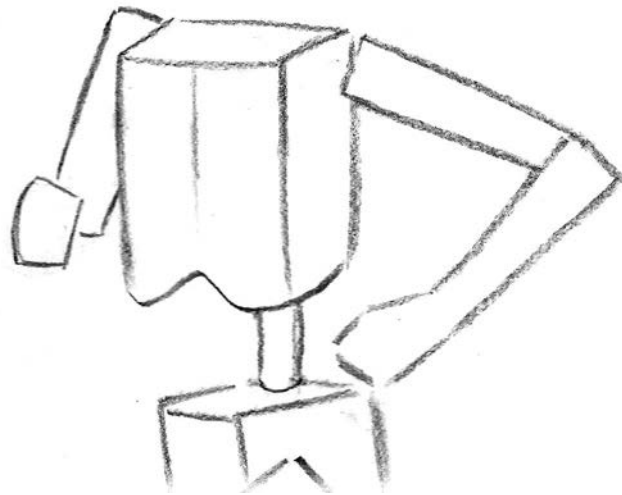
- 2 The hips and chest are modified boxes that explain the angles of the shoulders and hips with their top edges and by the turning of the sides. The spine is a cylinder located at the back of the pelvic block. The pelvis is turned, making the front appear narrow. The chest is turned more to the viewer than the pelvis.

Draw the left upper arm overlapped by the chest, then the hand overlapping the arm. The forearm is not drawn because it is pointed straight at the viewer and is overlapped by the hand.

Draw the right upper arm out to the elbow, then draw the forearm overlapping it.

Erase the extra lines where overlapping occurs.

3

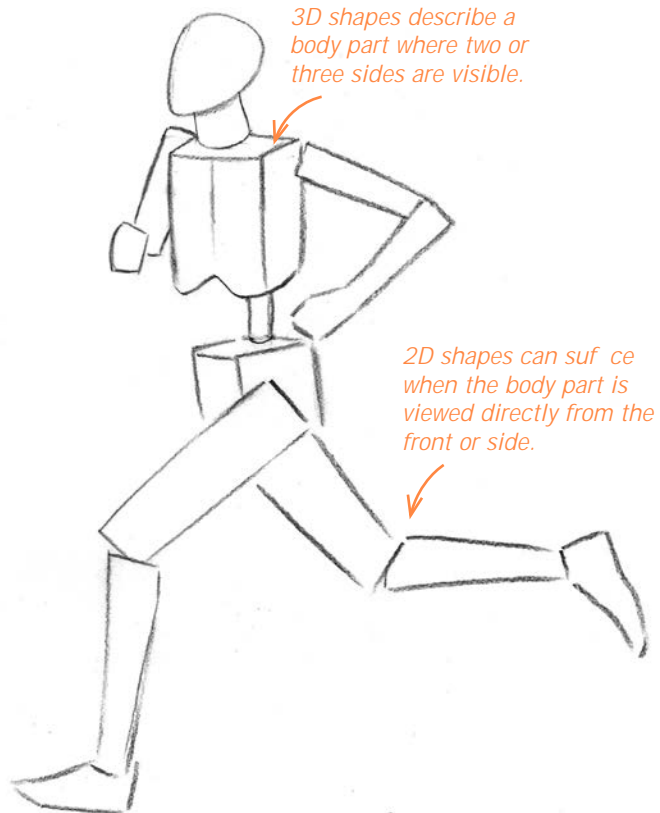


CONCEPT

A **shape figure** is a translation of the human body into basic 2D and 3D shapes. It reduces the distraction of surface details when determining size and positional relationships.

Complete the shape figure by drawing the head and then the neck. The head is an oval that tilts to the right. The neck is a cylinder with an elliptical curve at its base.

4

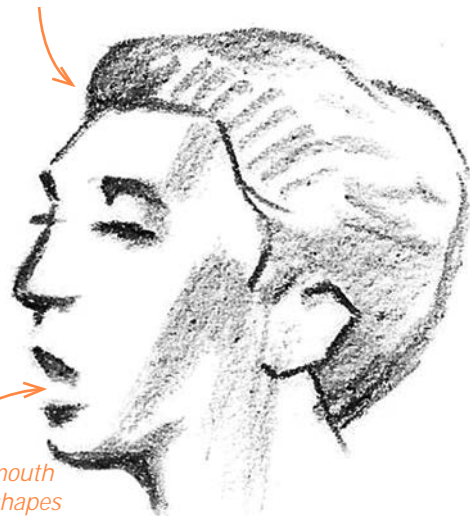


3D shapes describe a body part where two or three sides are visible.

2D shapes can suffice when the body part is viewed directly from the front or side.

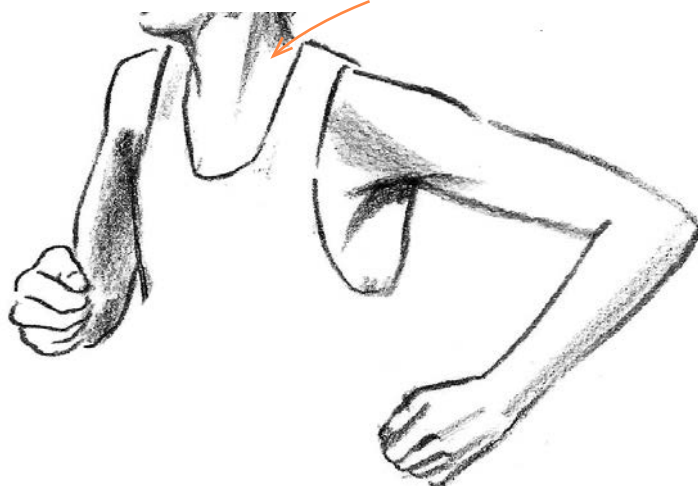


Shade the hair darker at the forehead and neck.



The spaces at the mouth and the triangular shapes describe the open mouth with abstraction.

Shade the angled line of the muscle that attaches to the clavicle and sternum.



5 Lighten the entire shape gure with a kneaded eraser.

Mark the angled line of the eyes faintly at the horizontal midpoint of the head. Draw the near eye with an angled line and a bump for the eye. Draw the far eye's lashes, then both eyebrows. Continue with the forehead and hair, then the ear, nose, mouth, and jaw.

Shading at the temple and cheek and breaks in the contour add to the 3D illusion.

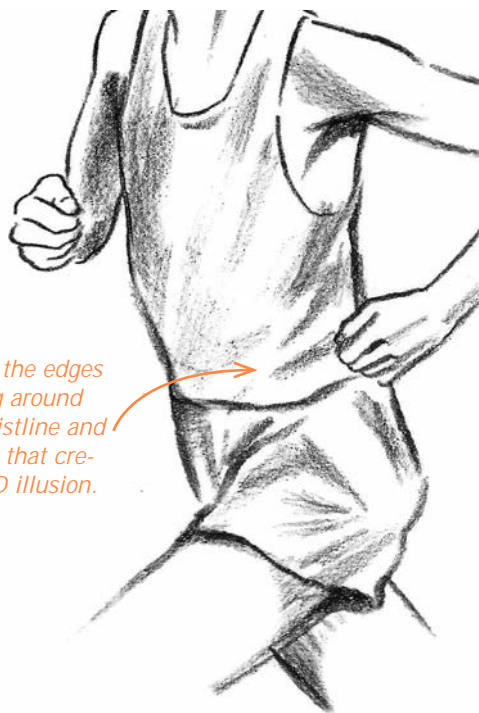
6 Draw the contours of the arms.

Before drawing the contours of the hand, notice that the thumb, index finger, and middle finger are angled downward and larger than the two smaller fingers.

Draw the contours of the torso, hips, and upper legs. Shade portions of the fabric with triangular shapes to indicate the draping of the fabric.

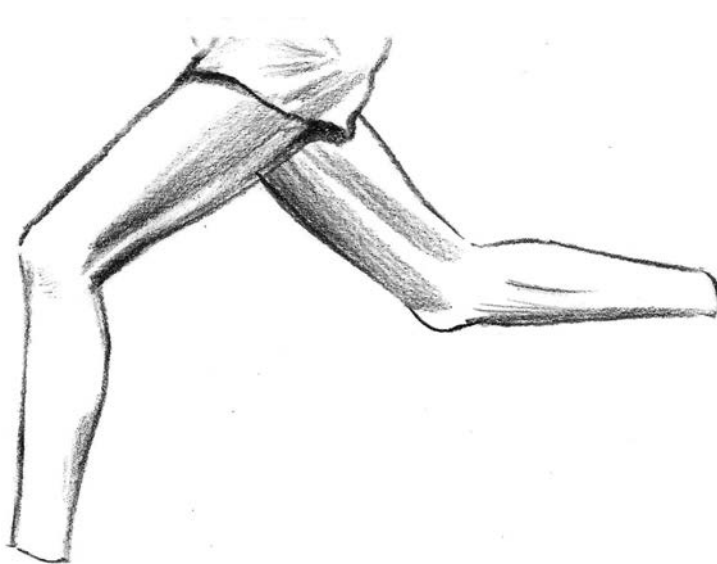
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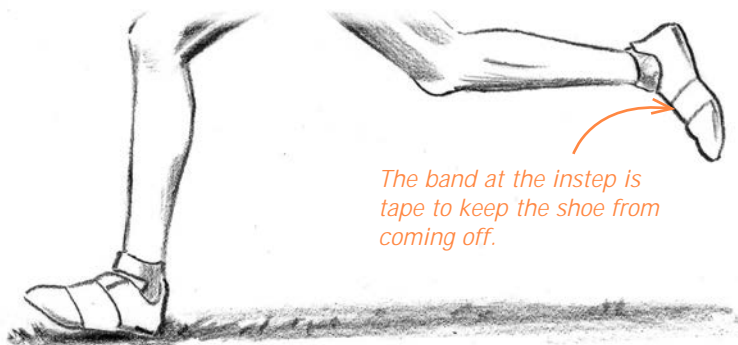
Notice the edges curving around the waistline and the leg that creates 3D illusion.



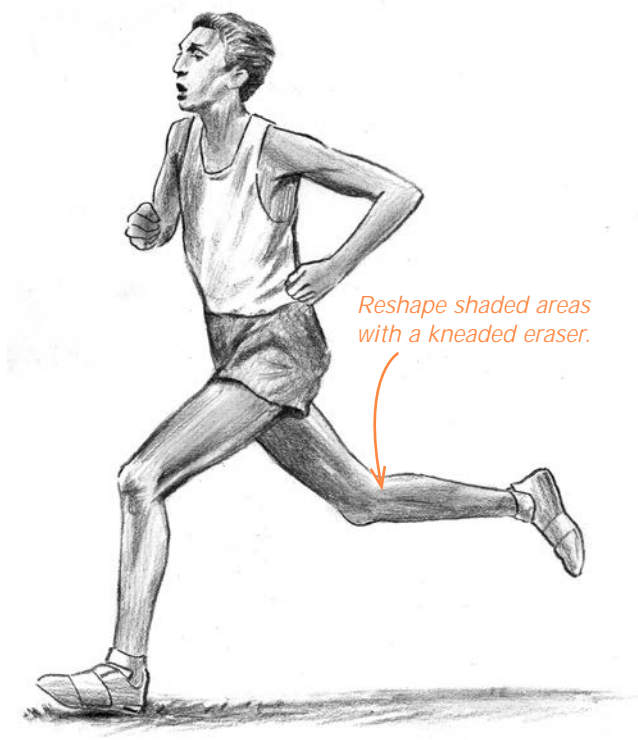
Draw the legs with the side of the pencil tip to create the thick-to-thin line and the soft shading. Turn the page to shade the angled muscles.

8





9 Draw the contours of the socks and shoes. Shade the grass underneath with the side of the pencil tip. Shade darker under the nearer shoe.



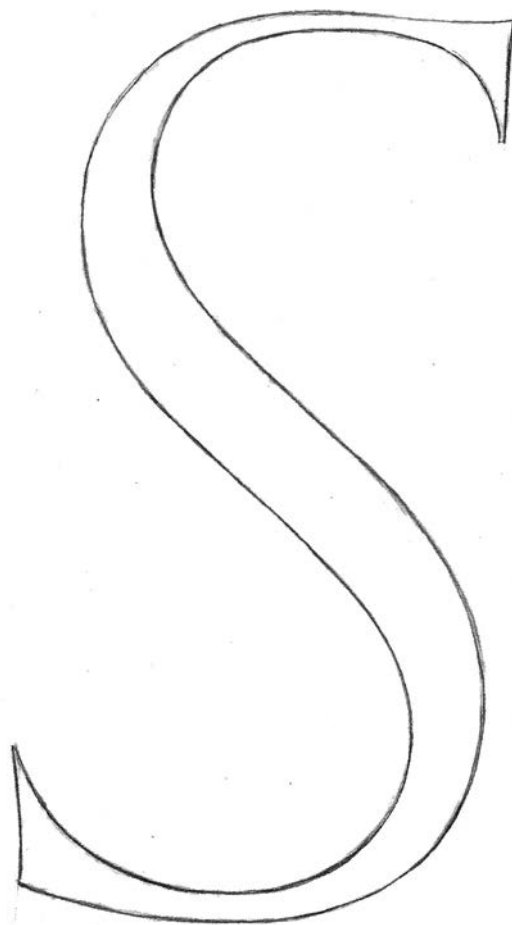
ADVANCED VARIATION

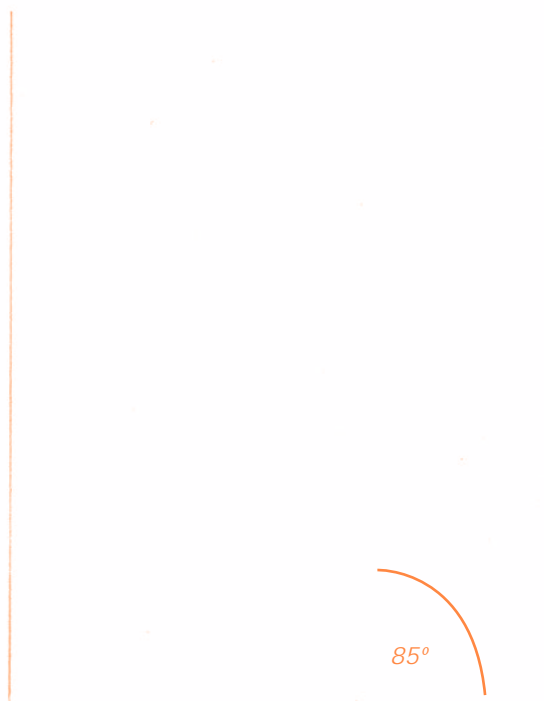
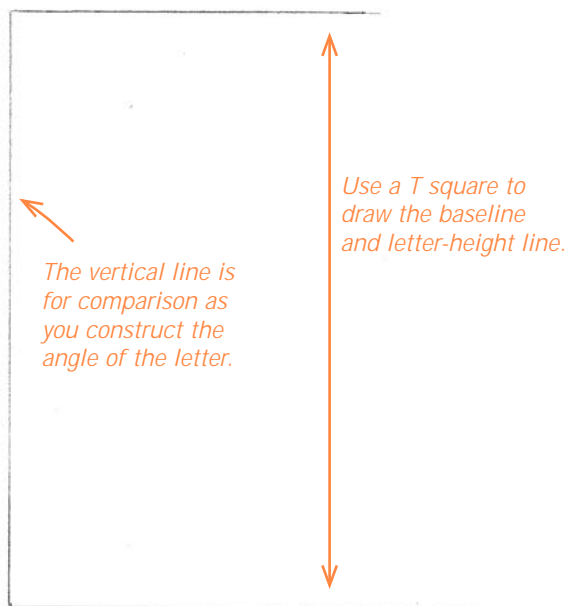
Refine the face with more naturalistic details. Shade the limbs to have more 3D illusion. Create gradations that run the length of the limb. Darken where the forms turn under or away.

S

Steps: 9 Dif culty: ■ ■ ■ ■ □

The *S* curve found in many art images is a symbol of elegance that flourished in ancient Rome. This letter *S* has a graceful slant and fine detailing of the serif ends. The thin-to-thick-to-thin pattern of the parts creates a visual rhythm. As with most letterforms, it's distorted slightly to appear balanced.



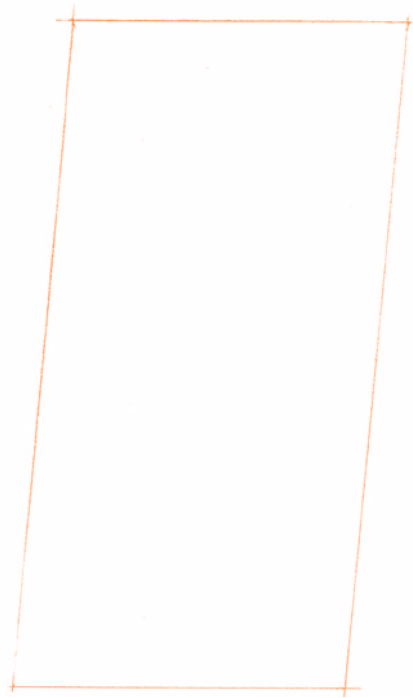


1 Draw a baseline and the letter-height line each about 4 inches (10cm) long and 6 inches (15.25cm) apart. Draw a vertical line to the left connecting the two horizontal lines.

2 On the baseline, mark a length 3 inches (7.5cm) long. Draw two diagonal lines each at 85-degree angles that extend to the height line. You can transfer the angle by aligning this image with your page, laying your pencil on the drawing, then carrying it over to your page.

Draw the diagonals connecting opposite corners to find the center of the parallelogram. Draw a horizontal line through this point.

3



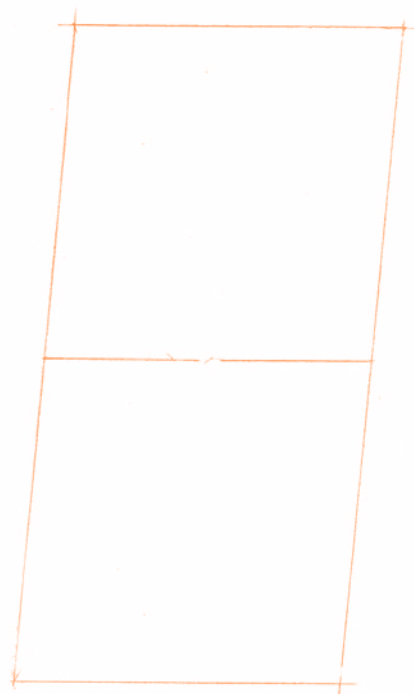
CONCEPT

Visual balance is sometimes achieved through distortion. In the case of the S, the upper portion is made smaller because a wider base makes the letter appear more stable and balanced.

Erase the diagonal lines used to find the center of the parallelogram.

4

Draw a line $1\frac{1}{2}$ inches (3.75cm) long at a 45-degree angle divided in half by the center of the parallelogram.

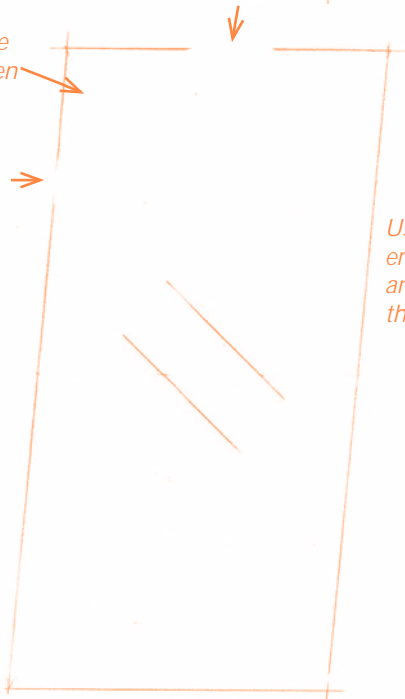




The upper curve is slightly smaller than the lower one to create visual balance.



Draw the curve faintly and then redraw it with darker lines.



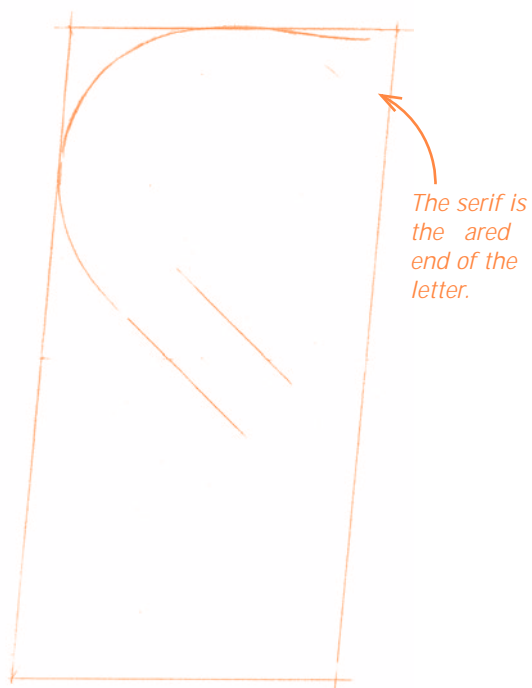
Use the kneaded eraser to smooth any bumps in the line.

5 Draw two lines parallel to the first 45-degree-angle line. Measure them to be a $\frac{1}{2}$ inch (1.25cm) apart. The upper line is farther from the centerline than the lower line. That will make the upper curve tighter so that it has visual balance with the larger lower portion.

6 Draw the upper exterior curve to touch the guide-lines where the arrows point.

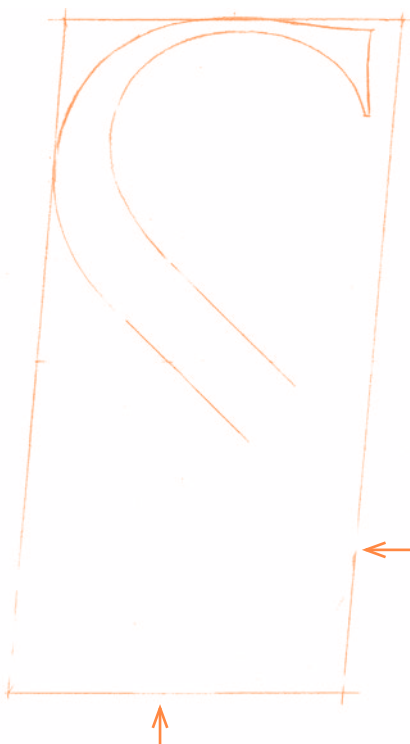
Complete the upper portion, the interior curve, and the serif. Draw the thinnest part of the line to be 1/8-inch (3mm) thick.

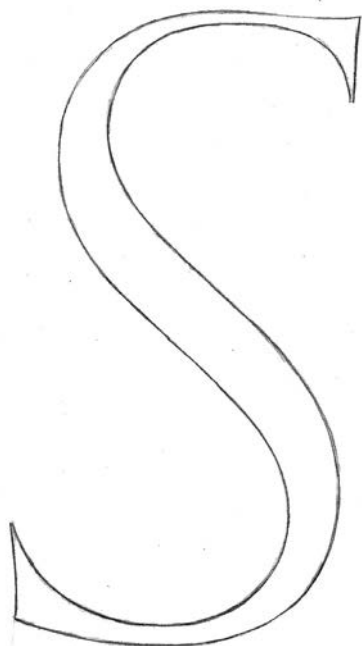
7



Complete the lower portion with the same process as the upper portion. Again, the apexes of the curves occur at the arrows. The lower curve and serif extend wider than the upper curve.

8



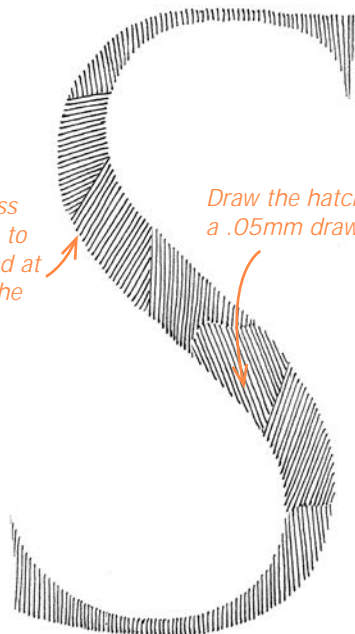


9 Erase the construction lines and refine the contour to make it smooth.

ADVANCED VARIATION

Draw the cross contour lines to begin and end at the edge of the letter.

Draw the hatch marks with a .05mm drawing pen.

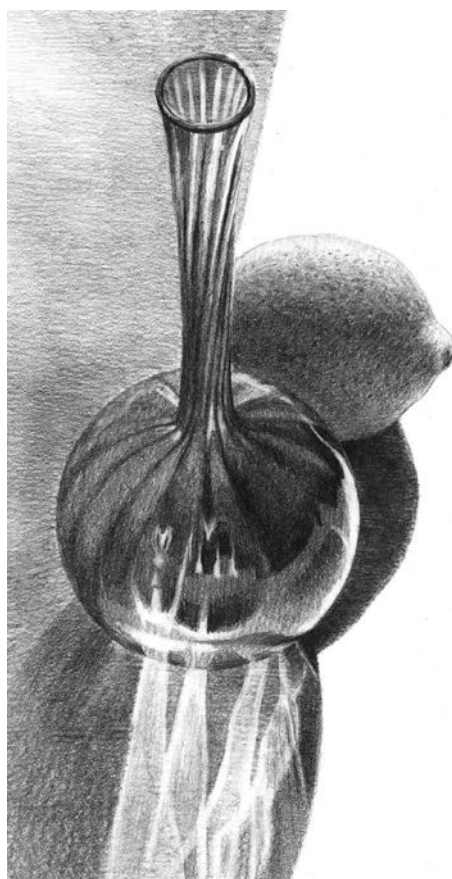


Draw a penned version of the letter. Create an overlay by covering the preceding drawing with translucent paper and taping it down. Without drawing contour lines, shade the letter area with cross contour hatch marks. Space the marks evenly to create an even tone. Change the direction of the marks occasionally to create variety.

glass and fruit

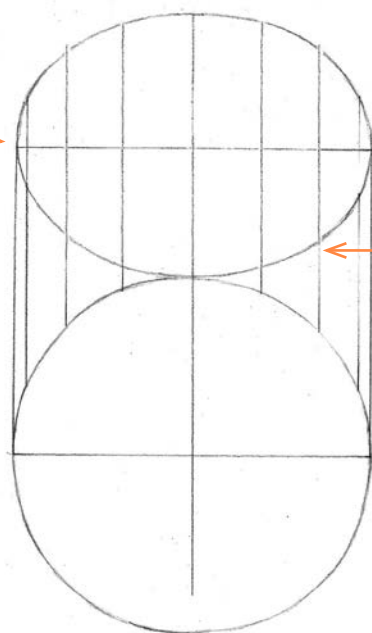
Steps: 9 Dif culty: ■ ■ ■ ■ □

This drawing contrasts and compares two spherical objects in strong sunlight, one dense and the other translucent. The lemon has one light and one dark area of value, and the vase has one dark area containing several small light shapes. The lemon casts a simple dark shadow compared to the vase's, which is more complex with varying values and overlapping forms.

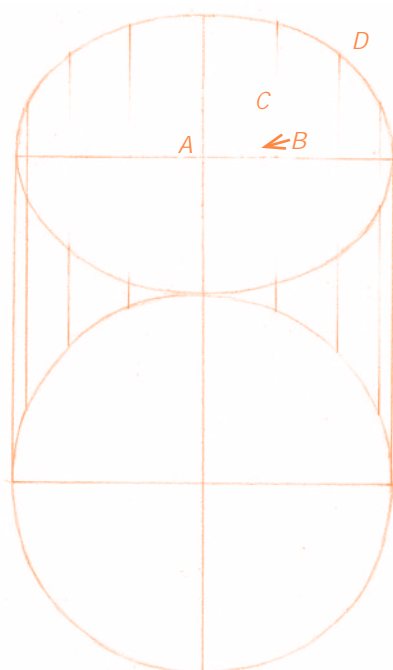




Use a 4B pencil to create a transfer of the circle and ellipse for the glass vase.



These marks on the circle and ellipse will determine the spacing of the vase's vertical stripes.



- 1 On translucent paper, draw a $3\frac{1}{2}$ -inch (9cm) diameter circle and its midpoints. Along the top half of the circle, make a tick mark every $\frac{1}{16}$ inch (1.75cm).

Draw two vertical lines 3 inches (7.5cm) starting at the ends of the circle's horizontal midpoints and a horizontal midpoint for the ellipse. Create the ellipse's vertical midpoint by extending the circle's vertical midpoint another $2\frac{5}{8}$ inches (6.5cm).

Draw vertical lines from the marks on the circle through the ellipse.

- 2 Draw three smaller ellipses positioned at the center of the larger ellipse. The smallest, ellipse A, is $\frac{9}{16}$ inch (1.5cm) tall and $\frac{3}{4}$ inch (2cm) wide. Ellipse B is $\frac{7}{8}$ inch (2.25cm) tall and $1\frac{1}{8}$ inches (3cm) wide. Ellipse C is $\frac{11}{16}$ inches (1.75cm) tall and $1\frac{3}{8}$ inches (3.5cm) wide.

D is the largest ellipse from step 1.

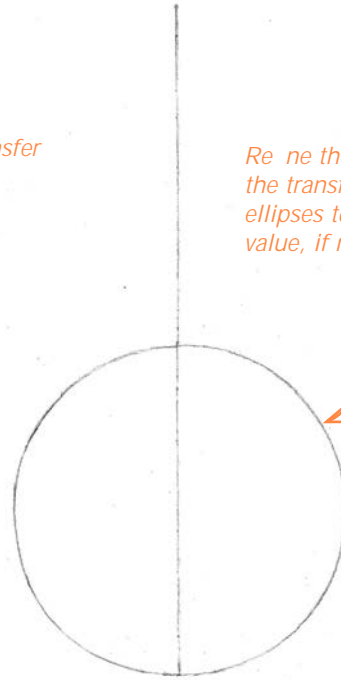
On a 9 × 12-inch (22.9 × 30.5cm) sheet of Bristol paper, draw a 7-inch (17.75cm) vertical axis for the vase 3½ inches (9cm) up from the bottom.

With the transfer turned drawing side down, align the circle's vertical midpoint with the vase's axis at the bottom of the line and tape it down. Rub the circle and its horizontal midpoint firmly with a blending stick.

3

Adhere the transfer in place with drafting tape.

Refine the contours of the transferred circle and ellipses to a 50 percent value, if necessary.



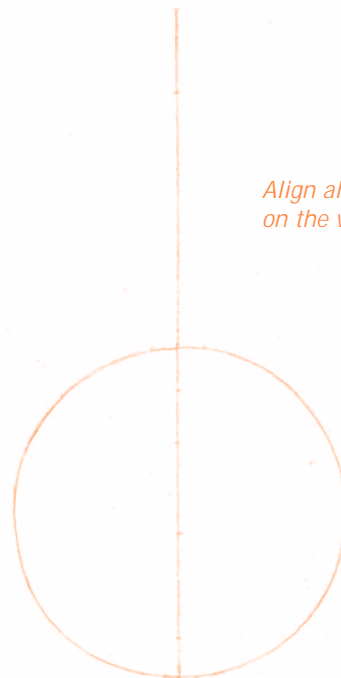
CONCEPT

The anatomy of light is a model of the parts of light on a basic form consisting of a highlight, midtone, shadow, reflected light, and cast shadow.

Position the top of ellipse B of the transfer sheet to the top of the vase's vertical axis and transfer it. Position the top of ellipse A ⅞ inch (1.5cm) below the top of the circle and transfer it. Position ellipse C ⅞ inch (1.5cm) up from the bottom of the circle and transfer it.

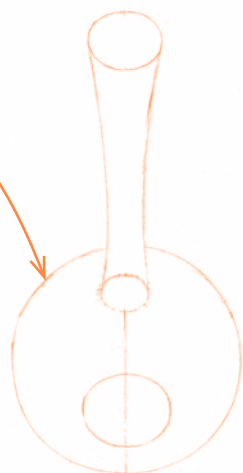
4

Align all ellipses on the vase's axis.



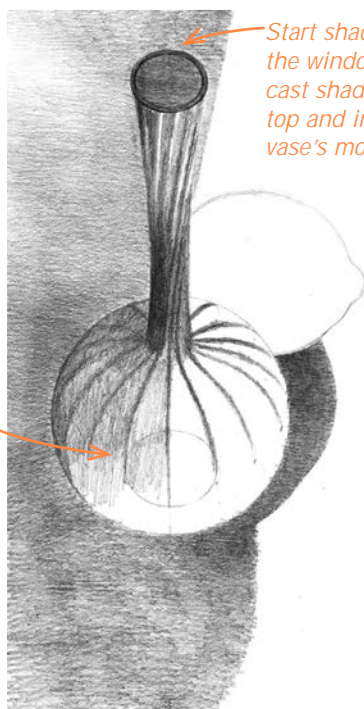


The rear stripes curve below the contour edge.



Start shading at the window drape's cast shadow at the top and include the vase's mouth.

The midtones of the vase are similar to lighter areas of the combined cast shadows at this point.



5 Position the horizontal midpoint of ellipse D on the horizontal midpoint of the circle and transfer it.

Draw the curves of the vase's stripes beginning at the points from the transfer to curve up to the base of the neck.

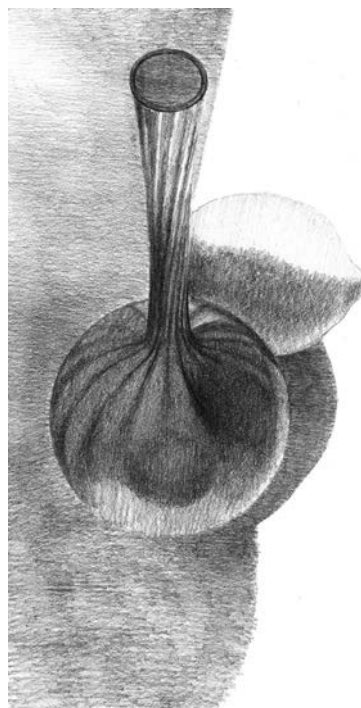
Create the contour of the lemon.

6 With short, overlapping horizontal strokes, create the gradations of the cast shadow to be darkest below the lemon.

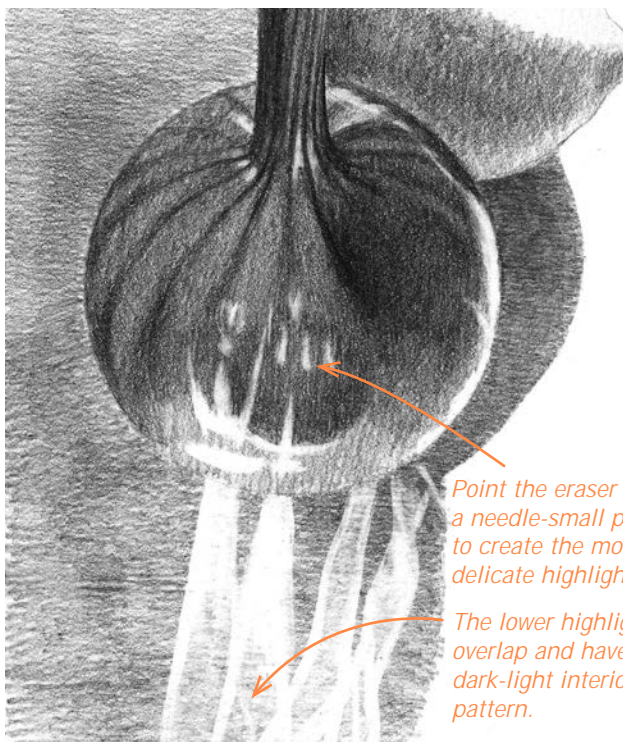
Shade the vase's stripes following the guidelines. The lower half of the neck is darkest. In the upper half, long highlights are left between the stripes. Shade the rim dark and the mouth again to 70 percent value. Shade the left side of the vase globe with dark-to-light midtones.

7 Continue shading the vase's globe with a dark-light-dark value pattern, darkest below the lemon and lightest at the top and bottom. Lay in the lower elliptical base of the vase with short vertical strokes to make a soft, darker edge.

With an HB pencil, shade the top of the lemon to 20 percent value, and the dark side (lower part) to have a soft edge with a reflected light at the bottom.

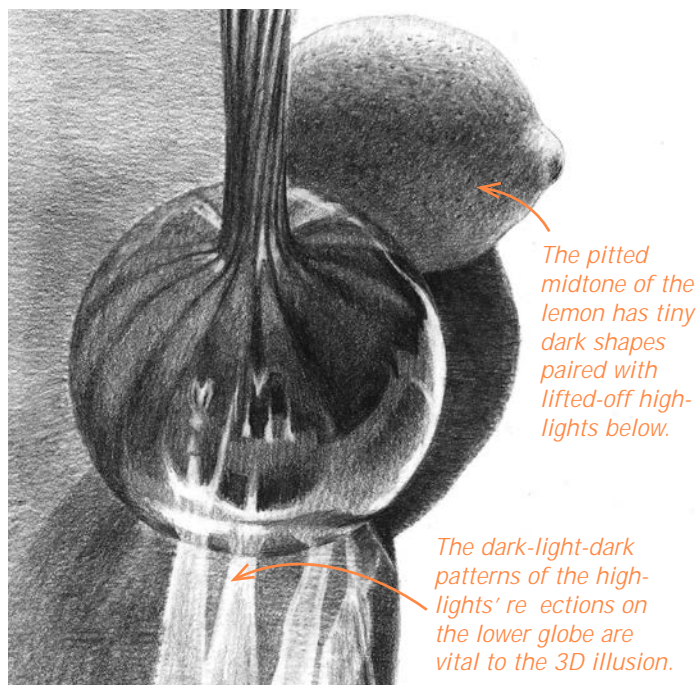


8 Shape a kneaded eraser to a rounded tip and drag it downward to create the sides of the highlights that stream from the bottom of the vase. Point the eraser and lift off the highlights of the top, right side, and lower part of the globe. Lift off the long highlights in the mouth area.



Point the eraser with a needle-small point to create the most delicate highlights.

The lower highlights overlap and have a light-dark-light interior value pattern.

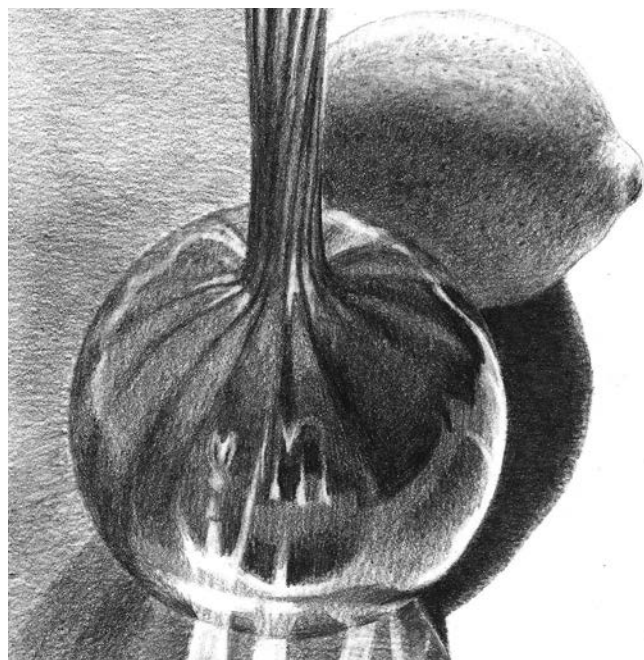


The pitted midtone of the lemon has tiny dark shapes paired with lifted-off highlights below.

The dark-light-dark patterns of the highlights' reflections on the lower globe are vital to the 3D illusion.

9 Shade the darkest areas cast by the globe and lemon. Increase the darkness of the edge of the vase's mouth, between some of the stripes at the neck, and around the delicate parts of some of the highlights.

Create the pitted texture of the lemon's peel by first shading small, uneven patches with an HB pencil, then add pitted areas with a 6B pencil. Create little highlights below some of the pits.



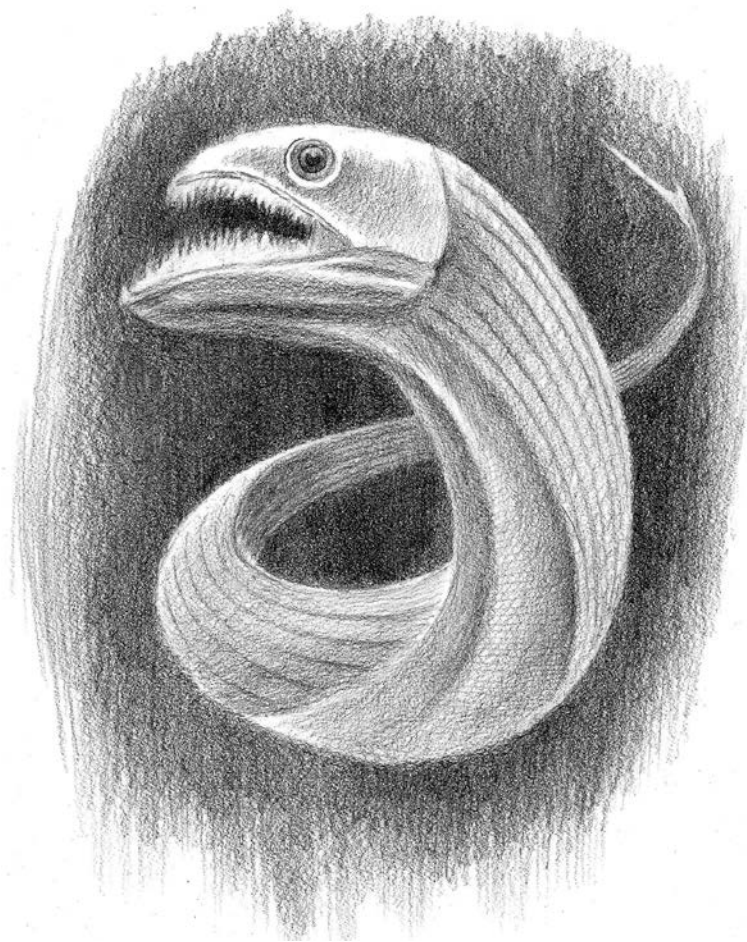
ADVANCED VARIATION

Soften the texture of the lemon peel. Tap the light area with the tip of a kneaded eraser to lighten and blend. Darken the shadow line separating the dark from the light side, but keep it soft. Have fun refining the vase's highlights even further with light touches and swipes with the tip of a kneaded eraser. Finally, with horizontal strokes, darken the shadow beneath the lemon to 100 percent value with an 8B pencil while leaving the right edge about 80 percent.

creature

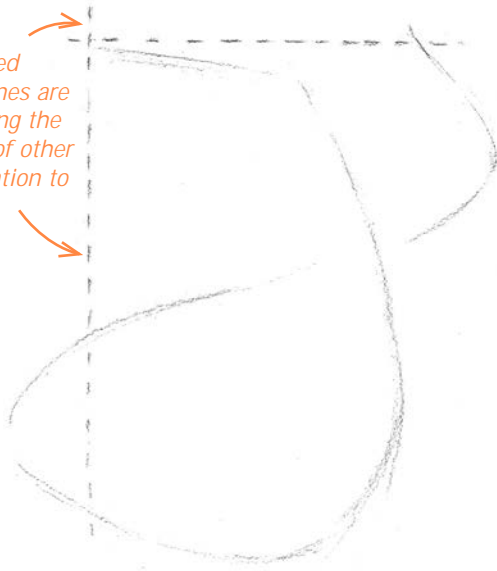
Steps: 9 Dif culty: ■ ■ ■ ■ □

This imaginary creature's curvilinear form coils into the depths of the ocean. Multiple techniques are used to create its illusion of depth: light figure on a dark ground; overlapping, converging lines; change in detail; and change in size. The visual path is a broken figure eight, but the continuation leads back to the head, staring into its blind eye.





These dashed reference lines are for comparing the placement of other parts in relation to the head.



The dashed reference line is the midpoint of the head from this view.

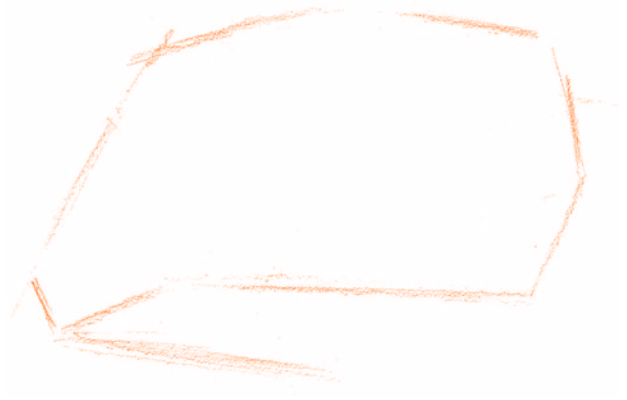


1 Sketch the curvilinear action line in sections, beginning at the top with the slightly angled line for the head. Then draw the downward angling line of the body to the lowest point. From here, angle the line upward and to the farthest point left. Continue upward, angling to the right, and complete the line where it curves to the left.

2 Draw the boxlike head as seen from below. The horizontal line delineates the near jaw; the lower angled line delineates the far jaw.

The top part of the head is set farther back than the jutting jaw. Draw the mouth opening and the circle for the eye.

3



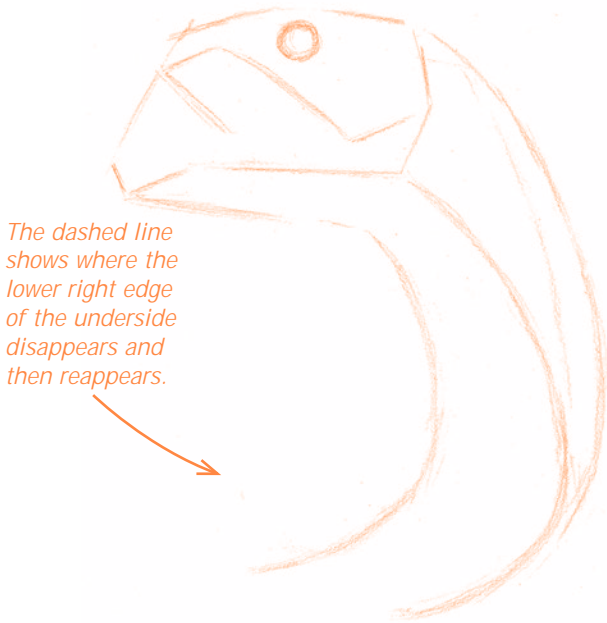
CONCEPT

The illusion of depth is created with diminishing size when similar objects become smaller and smaller or a single object is depicted in a fore-shortened or angled view.

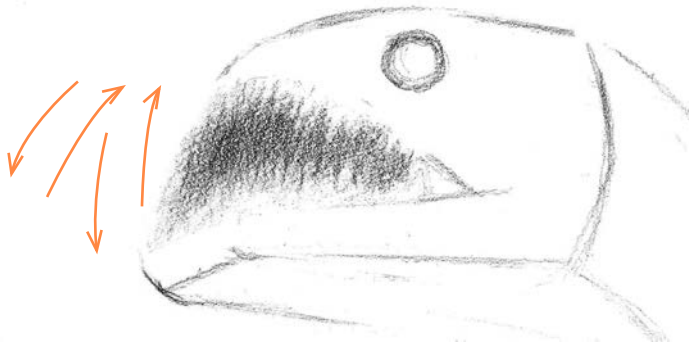
Lay in the curving lines of the left and right sides and underside of the body.

4





The dashed line shows where the lower right edge of the underside disappears and then reappears.



5 Draw the curving lines to complete the body. Complete the jagged end of the tail.

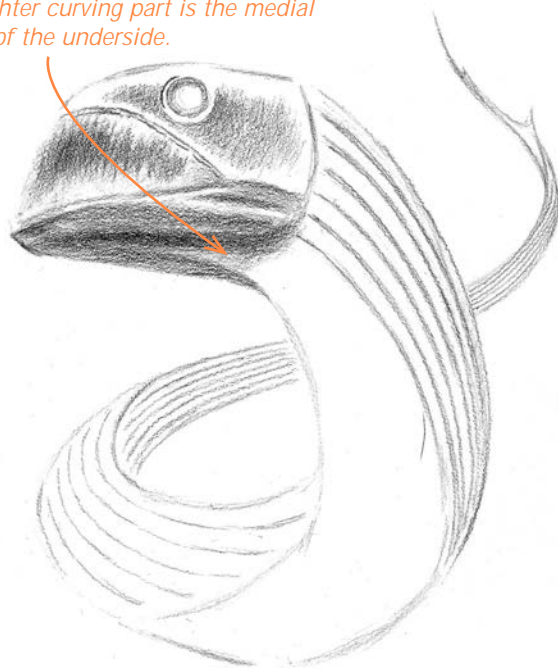
6 Shade the interior of the mouth with vertical marks that angle slightly to the left or right to begin the effect of small, sharp teeth. Round the top of the head and the place where it joins the body.

Shade the head, leaving highlighted areas at the edges and around the eye. Shade the jaw to have highlights and reflected lights in the shadow.

7

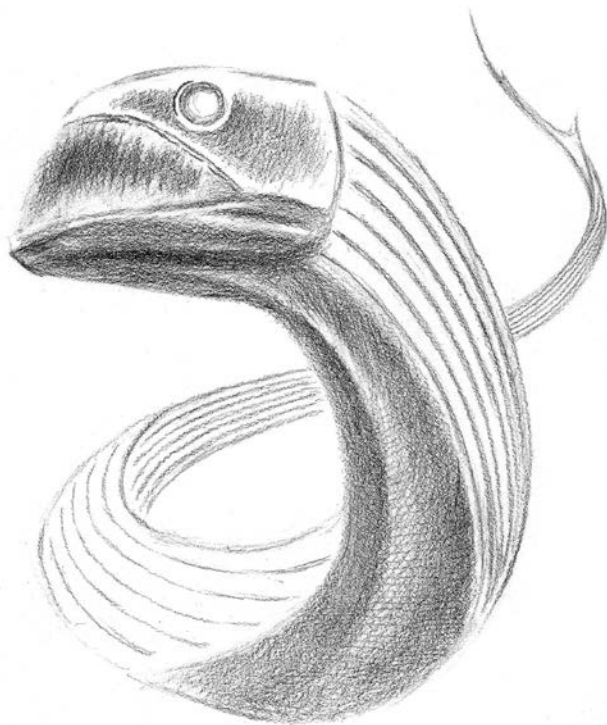
Add five evenly spaced lines running the length of the body that converge as the side narrows. These continue down the sides of the body and end before the jagged part of the tail. The underside is left unlined.

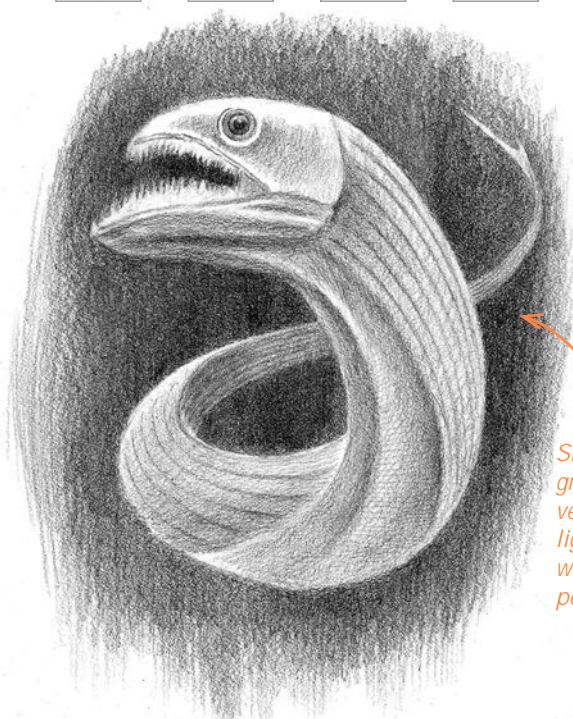
This lighter curving part is the medial center of the underside.



Continue shading the underside with a combination of back-and-forth shading and crosshatching to develop the surface from side to side. Leave the medial center lighter.

8



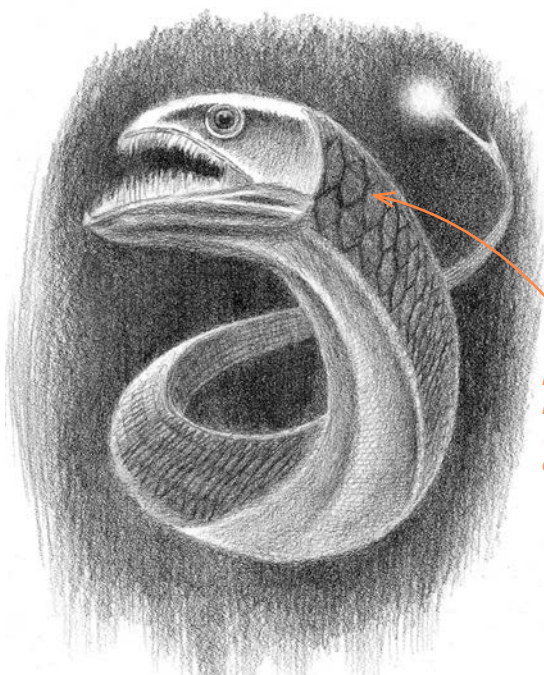


Shade the background to show a vertical light-dark-light value pattern with 80 to 100 percent value.

9 Shade the left side to be darker nearest the lighter edge of the underside. Shade the right side in the background to be darker near the light edge of the left side. Shade the tail up to the jagged part.

Shade the eye and leave a highlight. Darken the mouth interior.

Darken the background with vertical strokes from a 6B pencil. Leave the outer edge jagged and not shaded in the corners.



When the hexagons become extremely narrow, transition the pattern into cross contour lines.

ADVANCED VARIATION

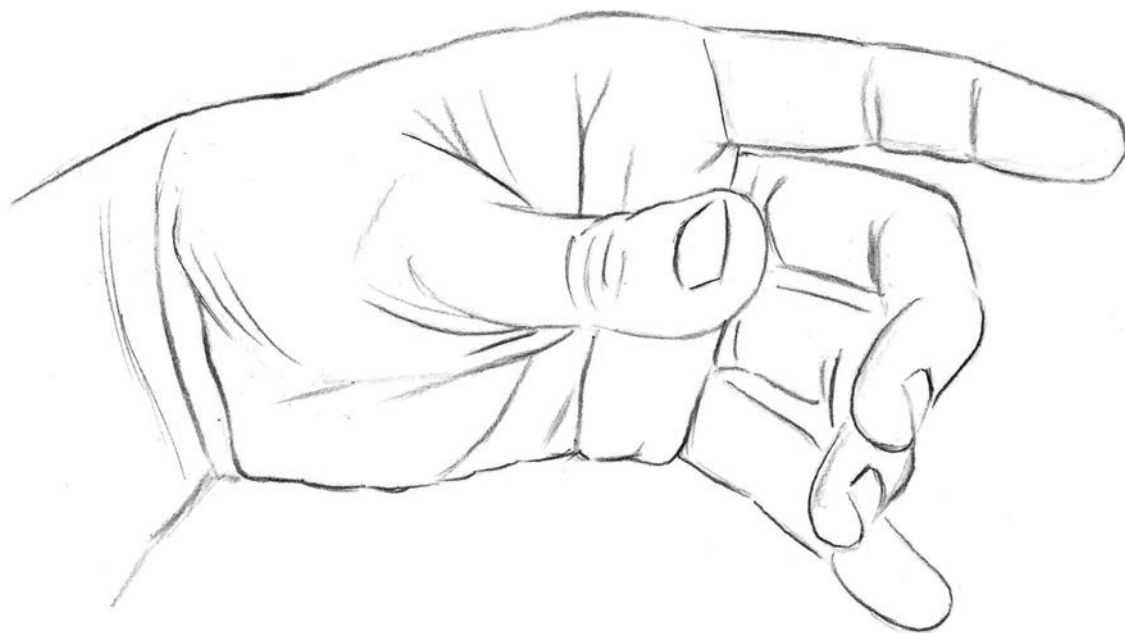
Create a surface texture on the creature with hexagonal scales. Use the lines on the right and left sides of the body as guidelines to create a pattern that diminishes at a consistent rate. Darken the hexagons' contours and shade the interiors.

Darken the shadow on the head. Then use a kneaded eraser to give the creature a glowing tail to put the finishing touch on this imaginary "Lantern Eel." Or can you imagine your own variation?

hand

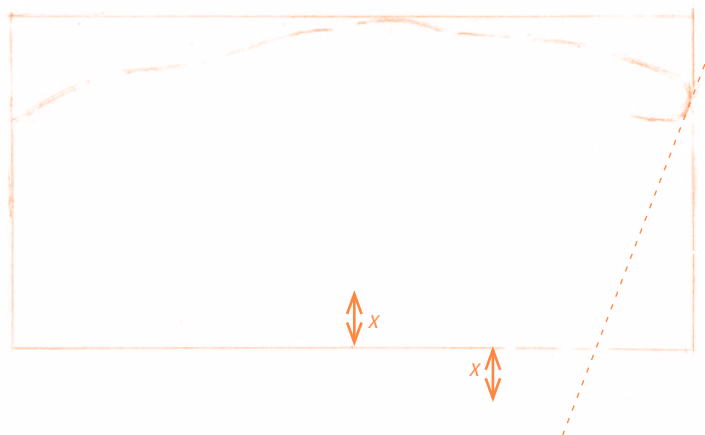
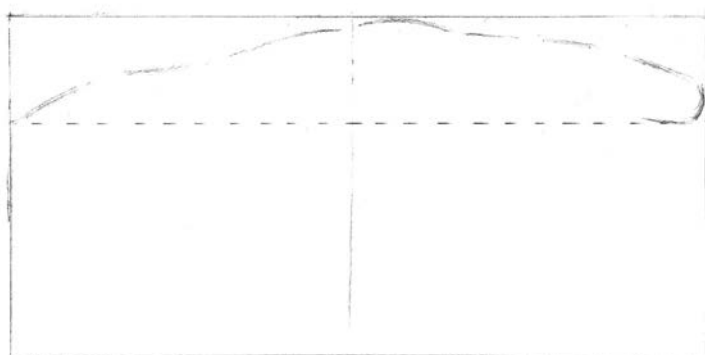
Steps: 9 Dif culty: ■ ■ ■ ■ ■

The human hand is very versatile, and can be expressive even when it's working. This lesson shows a hand in the act of cutting with scissors. Three fingers are extended and two are contracted in a graceful pose. The scissors, too, have a design that is beautifully streamlined while performing an exacting task.





The dashed reference line indicates the start and end of the upper contour are level.



- 1 Draw a light rectangle 3 inches (7.5cm) tall and 6 inches (15.25cm) wide. Allow for 4 inches (10cm) above the rectangle if you will be completing the advanced step.

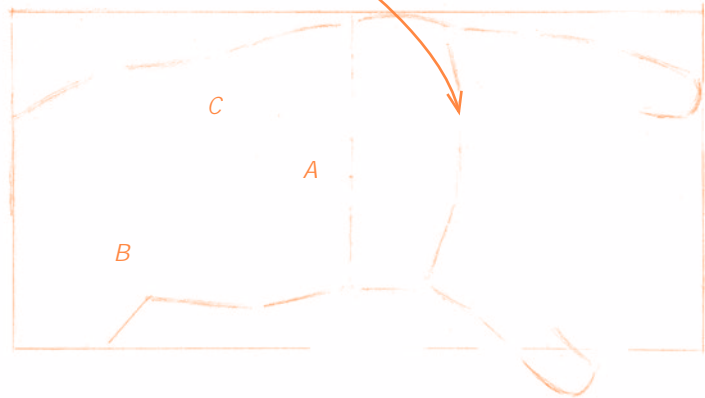
Draw a vertical midpoint in the rectangle and copy the broken-line contour from the illustration.

- 2 Draw the lower contour, then the vertical curve at the base of the fingers. Notice the angle of the tips of the two extended fingers and the distance X that shows how far the little finger goes below the rectangle.

Mark the horizontal midpoint (A) and use it to position the lines of the thumb. The crease of skin at the bend in the wrist (B) angles upward to the base of the thumb. Point C marks the location of the second joint of the thumb.

3

The end of the thumb angles upward and overlaps the line of the upper palm.

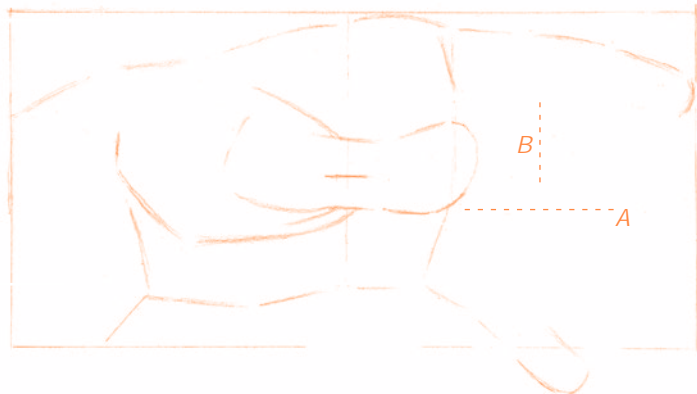


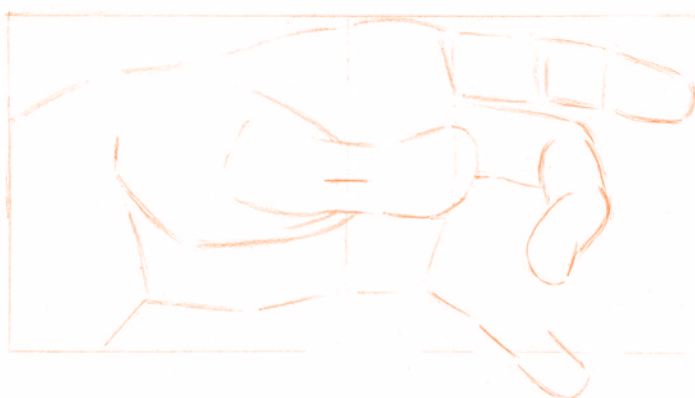
CONCEPT

Where overlapping occurs, draw the farthest parts completely, then the nearer parts over them to determine the continuation of contours with sections that disappear and then reappear.

Draw the middle finger. Notice the underside of the middle segment aligns with the crease of the index finger and the joint of the first segment aligns with the bottom of the thumb.

4





5 Draw the ring finger and complete the little finger.



6 Draw the nails of the middle and ring fingers. The end curve is a cross contour line that describes the lateral roundness of the finger.

Draw the thumbnail. Notice how the sides are not parallel, the outer curve is wider and the narrow curve is not symmetrical.

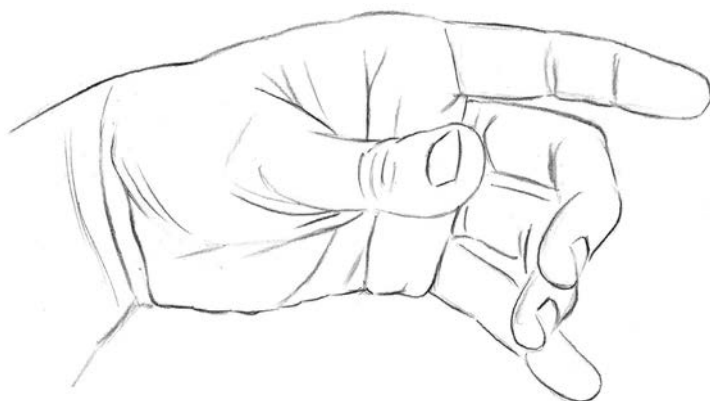
7



Add the flesh folds and wrinkles of the wrist, palm, and thumb.

8

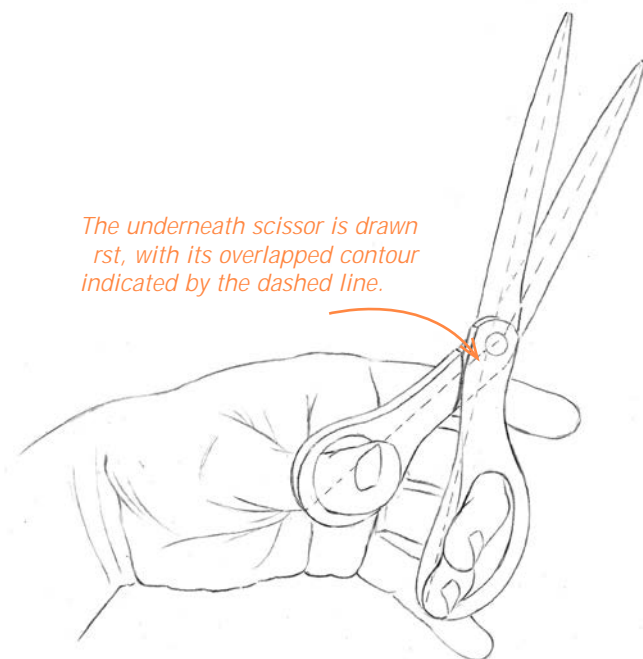




- 9 Erase all the construction lines; then lighten all the contours of the drawing and refine them to 80 percent value. Create lines with varied pressure and allow some breaks to keep the contour lively and light.

ADVANCED VARIATION

The underneath scissor is drawn first, with its overlapped contour indicated by the dashed line.



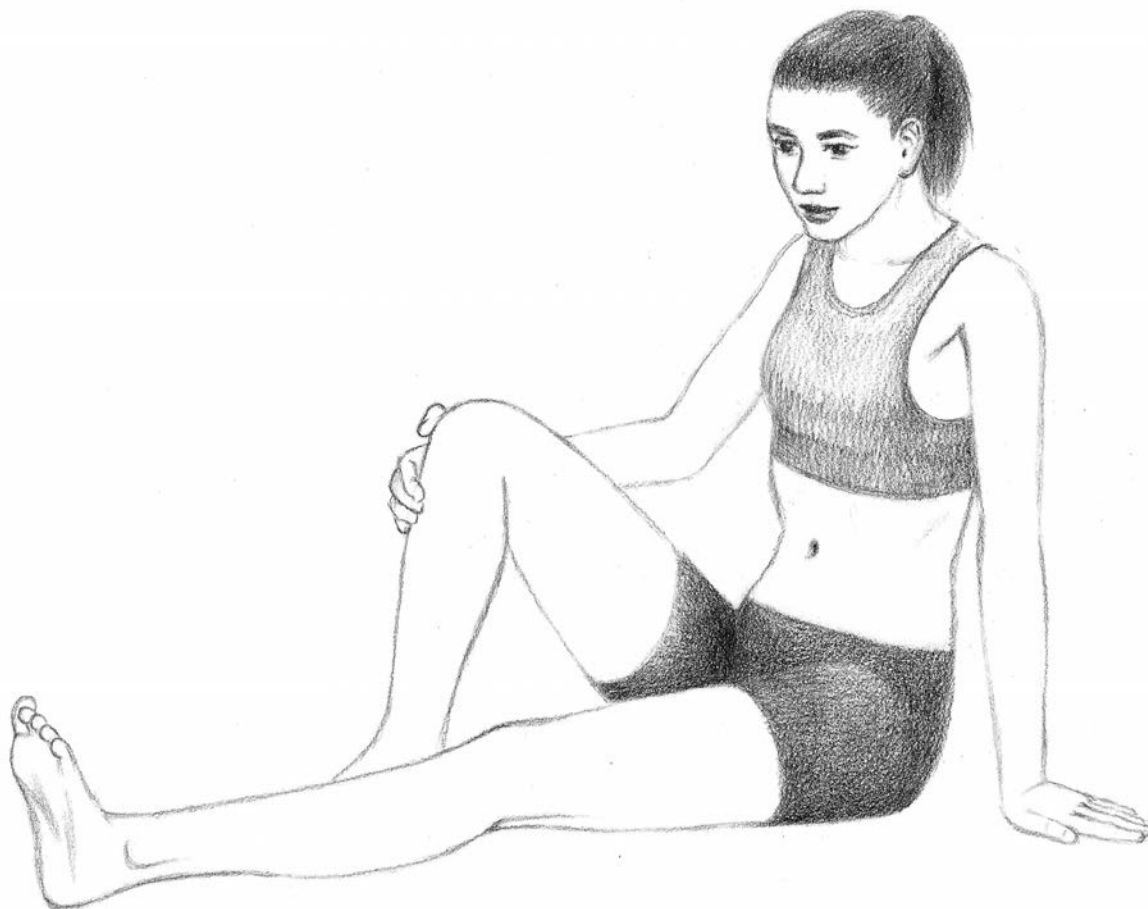
Draw scissors over the lines of the hand positioned as if they are being held. Begin by drawing a construction line at a 65-degree angle aligned with the side of the thumbnail, then draw the inside hole and work outward. This half of the scissors bends at the pivot. Create the top scissor with the same process as the first. Erase the overlapped lines to complete the drawing.

how to
draw a

reclining figure

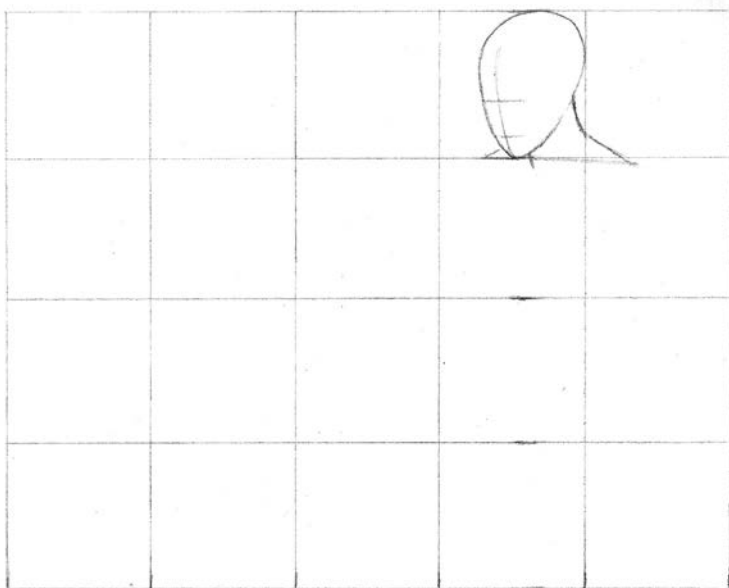
Steps: 9 Dif culty: ■ ■ ■ ■ ■

This figure is in three-quarter view with eyes below the viewer's. This is determined from the line of her eyes slanting upward as it goes from near eye to far. Extend this imaginary line and other angled imaginary lines of the nose and mouth to meet at a point on the horizon that is level with the viewer's eyes.

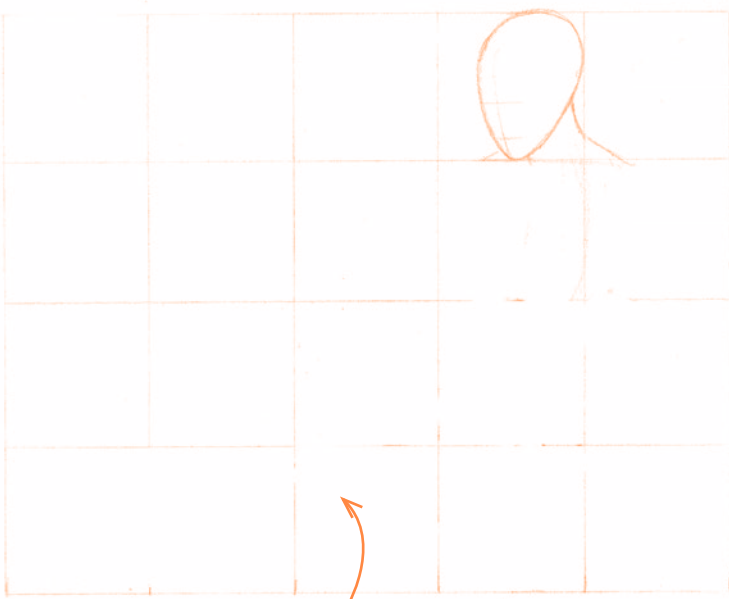




Construct a shape figure transfer.



- 1 On translucent marker paper, construct a 4×5 grid where each block is $1\frac{5}{8}$ (4cm) squared. This is the same height as the figure's head and will be a unit of measure for placement of the various parts. Begin the shape figure by drawing the head at the right of the second block from the right of the top row. Add the line of the neck and shoulders.



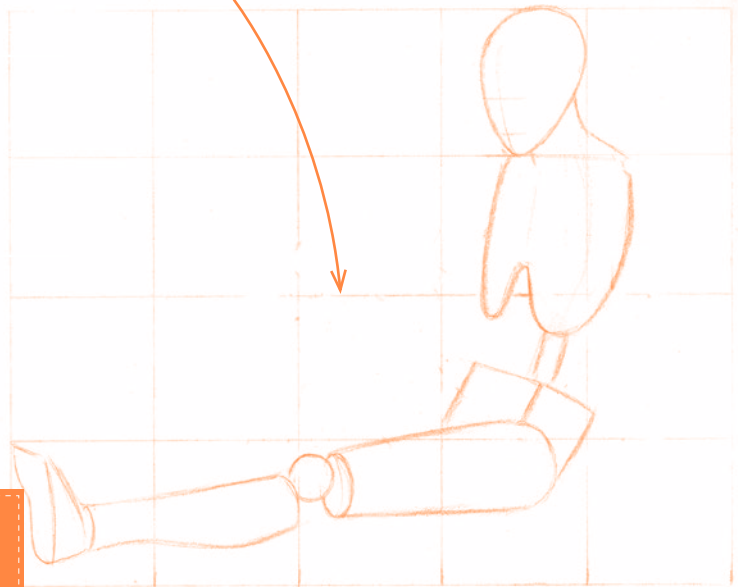
The ellipses give clues that parts are turned to the viewer.

- 2 Construct the torso and near leg of the shape figure. Follow the placement shown by the grid.

Draw both arms, then the far leg. The hand on the far leg is drawn first to determine the correct placement of the fingers.

3

The leg will eventually cover the palm and wrist.



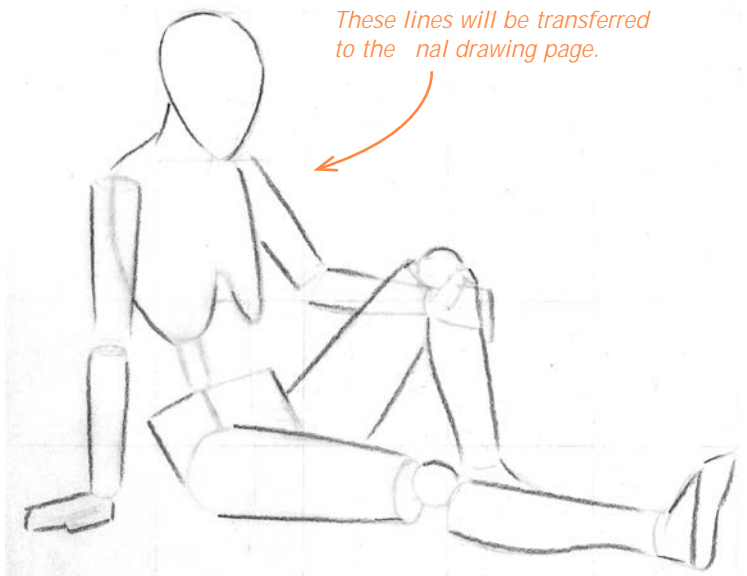
CONCEPT

The angles of the edges of objects meet at various points on the horizon at the same level as the viewer's eye level and change as the eye level changes.

Turn the transfer page over and redraw these portions of the lines from the other side.

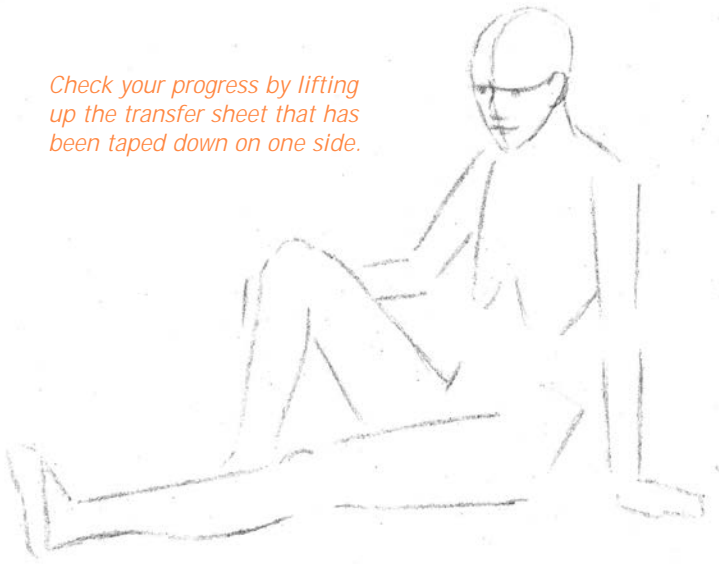
4

These lines will be transferred to the final drawing page.





Check your progress by lifting up the transfer sheet that has been taped down on one side.



- 5** Lay the transfer sheet, with the non-grid side facing down, over Bristol paper and tape it down with a book hinge mount. Transfer the lines by rubbing over the lines of the figure on the grid side with a blending stick.

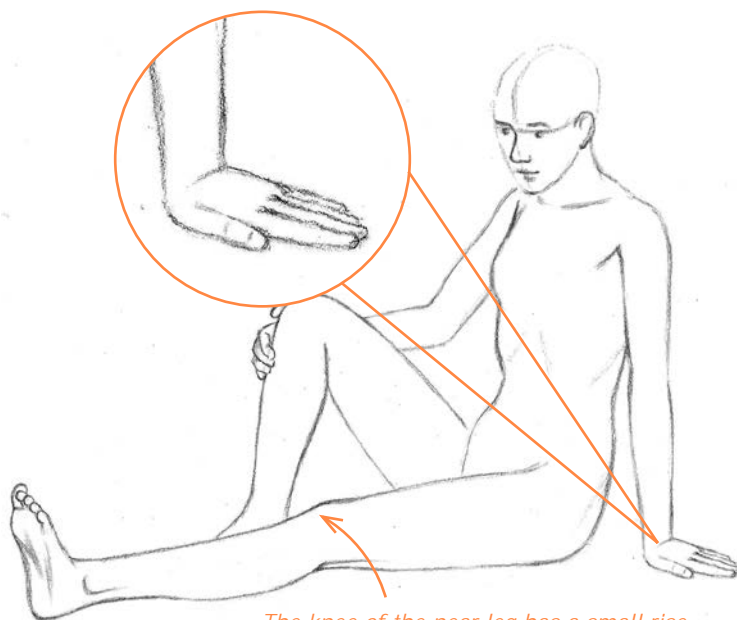
Draw the centerline, the lines of the eyes, nose and mouth, and ear, and the soft beginning forms of the eyes on the head shape.



- 6** Draw the contours of the torso, the arm, and the near hand.

Draw the near leg. Lay in the contours of the far leg and leave a blank area where the fingers will overlap. Then add the fingers.

7



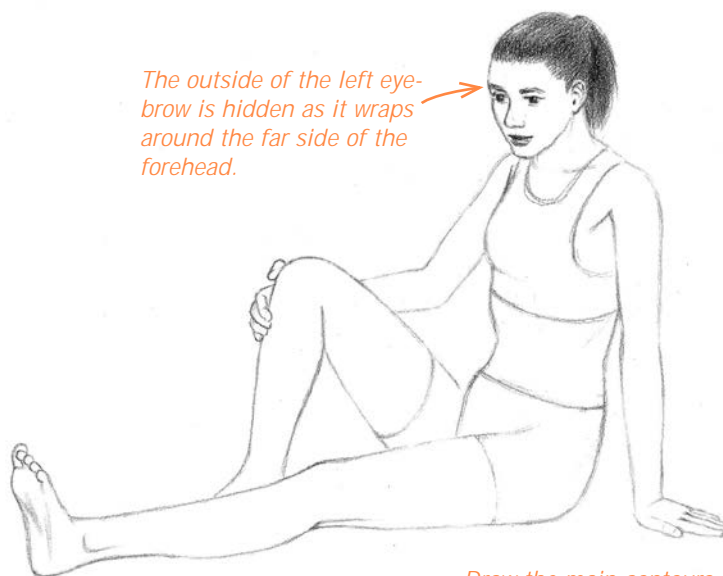
The knee of the near leg has a small rise that then angles downward to the shin.

Begin drawing the features of the face with very light touches with a sharp 4B pencil. When they are positioned correctly, refine them with darker touches.

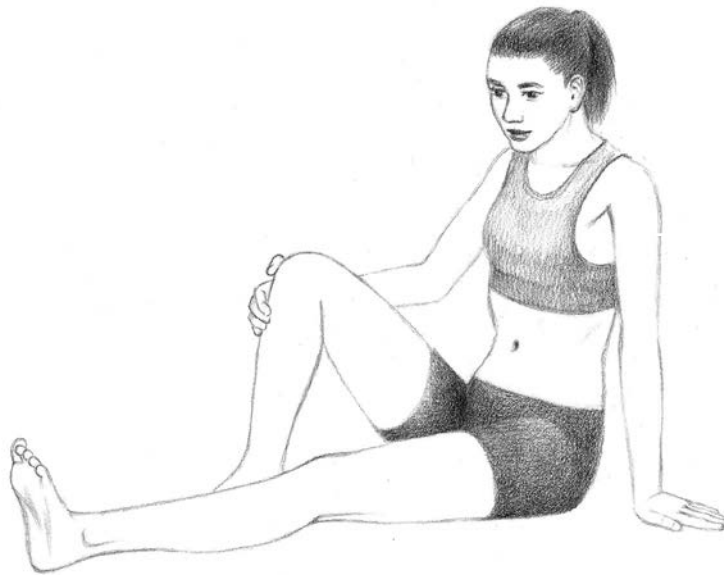
8

Shade the hair in the direction that it is pulled back and then falling downward. Leave a lighter highlight that runs across the crown.

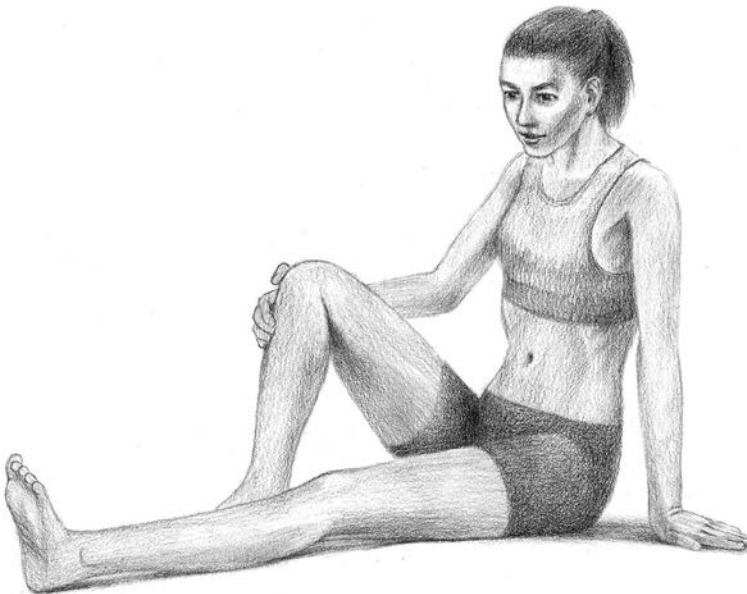
The outside of the left eyebrow is hidden as it wraps around the far side of the forehead.



Draw the main contours of the clothing.



9 Lightly shade the shape of the navel with a darker recessed right side and a softer shadow at the left and above. Shade the clothing with dark local values.



ADVANCED VARIATION

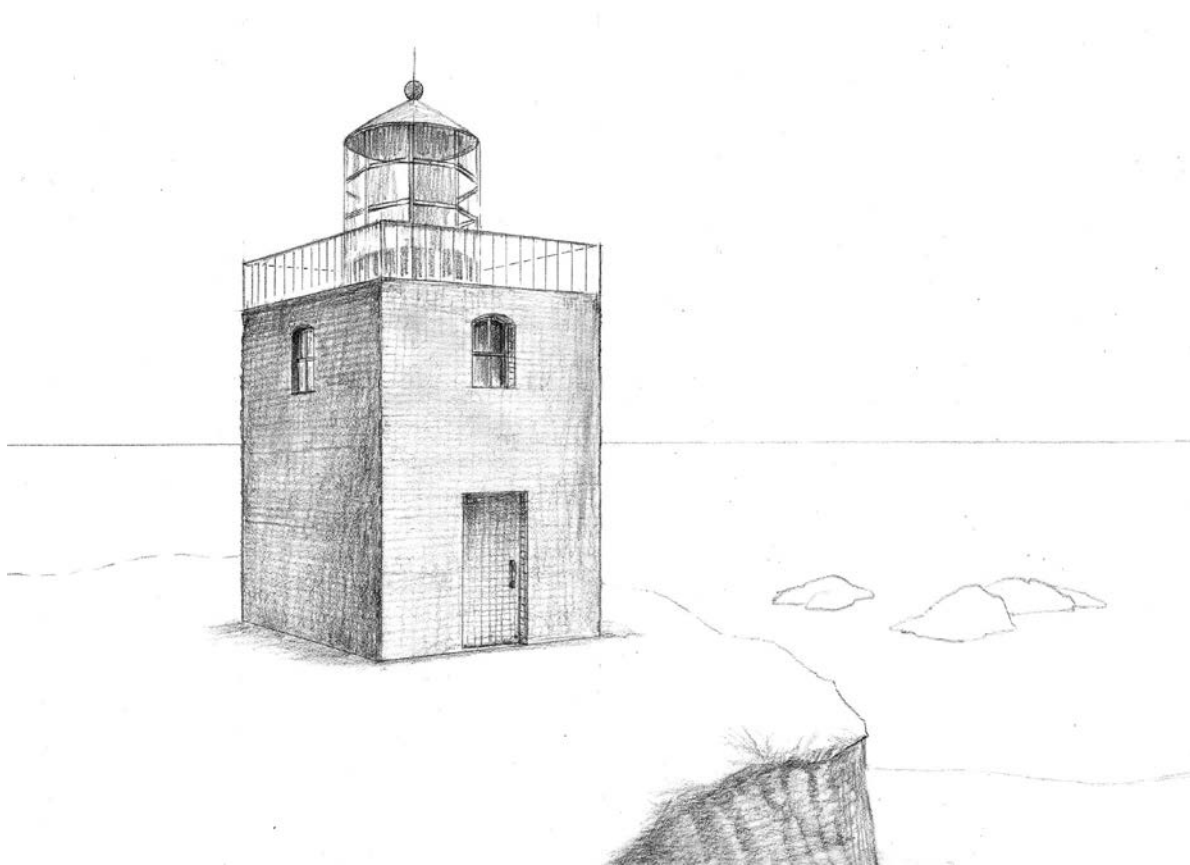
Shade the recessed areas of the flesh and tone the entire subject to 20 percent value with an HB pencil. Create the illusion of a light source at the upper left by lifting highlights on the brow, bridge of the nose, and clavicle. Add a cast shadow beneath her near leg that connects to her hand. Refine the edges of the shaded areas, mouth, and eyes with a kneaded eraser.

how to
draw a

two-point perspective scene

Steps: 9 Dif culty: ■ ■ ■ ■ ■

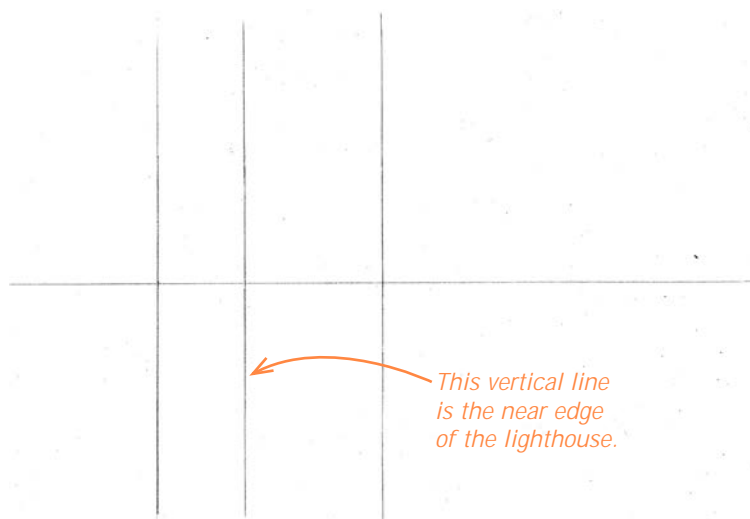
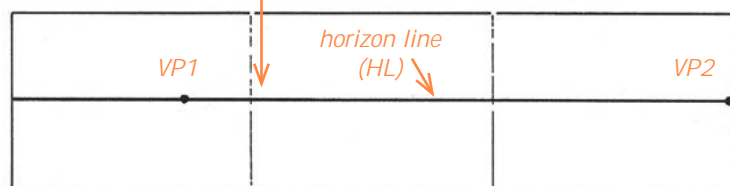
Objects that can be constructed with two-point perspective have a near edge between two facing sides. Sometimes the top or bottom is visible if the view is from above or below the subject. In this view of the lighthouse, the eye level of the viewer is the same as the horizon line that is slightly below the distant sea level.





Check that the T square's head is aligned to the drawing table or board before drawing the line.

The midpoint will be the scene's horizon line (HL).



The center sheet is the finished drawing page and the side sheets are extensions for the perspective construction.

1 Cut three pieces of paper down to 8 × 11 inches (20.5 × 28cm) and tape them together end to end to make a 33-inch (84cm) long drawing page. Align the page on a drawing table or board and tape it down. Draw a midpoint across the entire area and on that line draw a small point 8 inches (20.25cm) from the far left edge and another at the far right edge. Label the left point VP1 and the right point VP2.

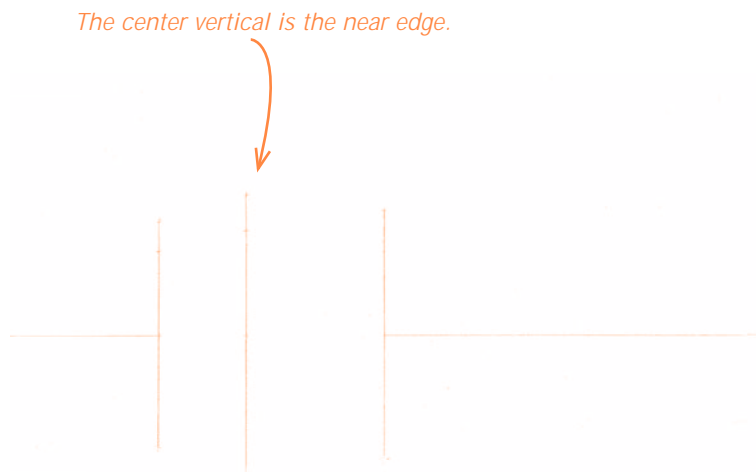
2 On the center sheet of the three taped sheets draw a vertical line down the entire page 3½ inches (9cm) from its left edge by aligning the T square head to the top edge of the table or board. Draw another line 1¼ inches (3.25cm) to the left of it and a third 2 inches (5cm) to the right.

Erase the vertical lines and angled lines of convergence indicated by the dashed lines.

Draw tick marks on the near edge at 2 inches (5cm) above the HL, at $1\frac{1}{2}$ inches (3.75cm) above the HL, and at 2 inches (5cm) below the HL. From each of these points draw two angled lines ending at VP1 and VP2.

Erase excess portions indicated by the dashed lines.

3

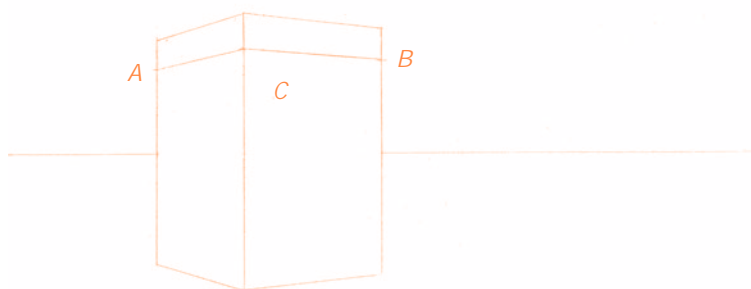


CONCEPT

Create depth in a drawing with **atmospheric perspective** by placing darker objects with more detail in the foreground and lighter objects and areas with less detail in the distance.

Draw a construction line angling downward from point A toward VP2 and a line angling downward from point B to VP1. The two lines will cross at C to create the hidden top of the lighthouse that will help determine the central axis of the lantern and lens. Draw diagonals to opposite corners of the roof shape. Where they intersect, draw a $2\frac{1}{2}$ -inch (6.5cm) vertical line upward.

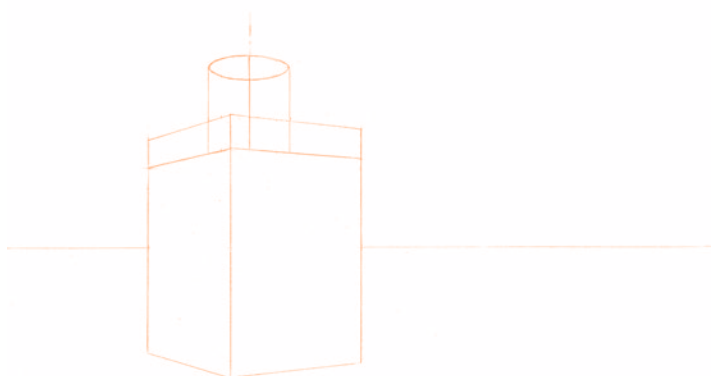
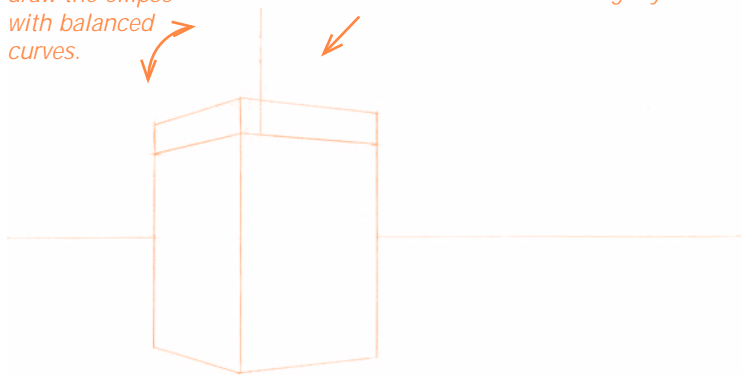
4





Turn the page to
draw the ellipse
with balanced
curves.

Draw this construction lightly.



5 Draw the horizontal major axis of the ellipse that will be the lantern's cap $1\frac{1}{2}$ inches (4cm) up from the bottom of the lantern's vertical axis and $1\frac{1}{4}$ inches (3.25cm) wide. Draw the ellipse $\frac{3}{8}$ inch (1cm) tall. Draw the vertical sides of the lantern downward from the ends of the ellipse.

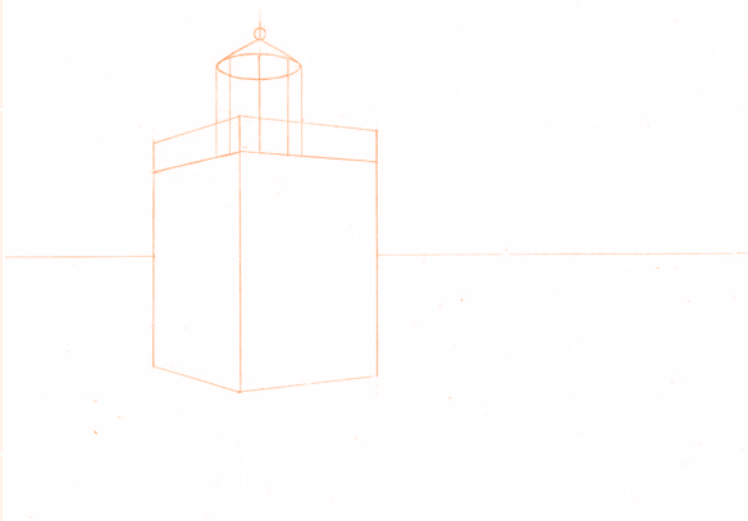
6 Erase the ellipse's construction lines.

Draw the vertical divisions of the lantern's glass panes, then the angled lines of the cap and the vent ball.

Find the centers of the two facing sides of the lighthouse by connecting diagonally opposite corners as in step 4. These will be used in step 8 to place the windows and door.

Sketch the cliff's edge, shoreline, and distant rocks.

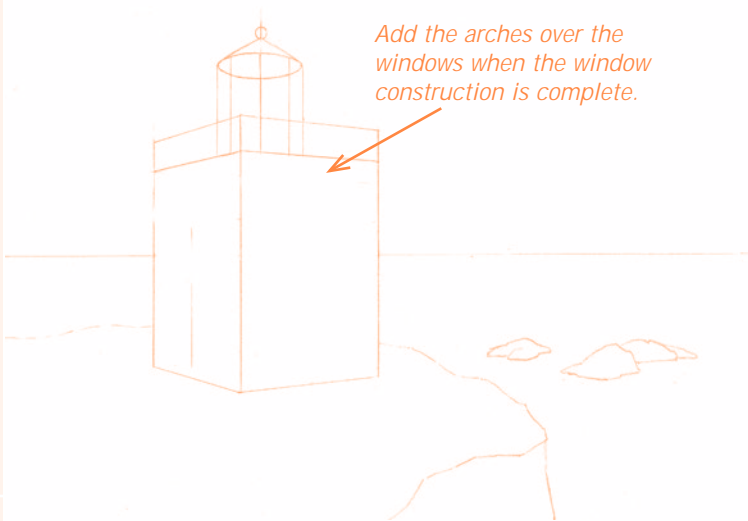
7



Draw the sides of the window and door on the right equidistant from their centerline using a T square. Turn the T square face down to draw top and bottom edges to angle to VP2.

Extend the window's angled lines to the near edge. From these two points draw lines that angle downward to VP1 to determine the left window's height. Then draw its sides closer to the centerline than the window on the right.

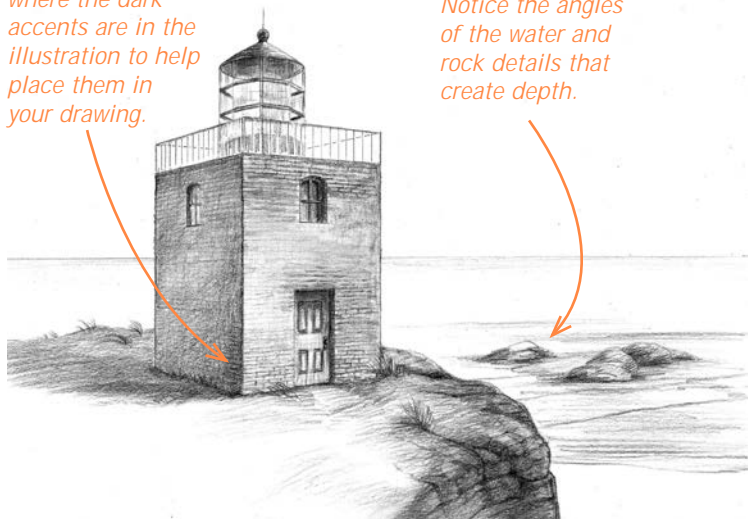
8





Squint to see where the dark accents are in the illustration to help place them in your drawing.

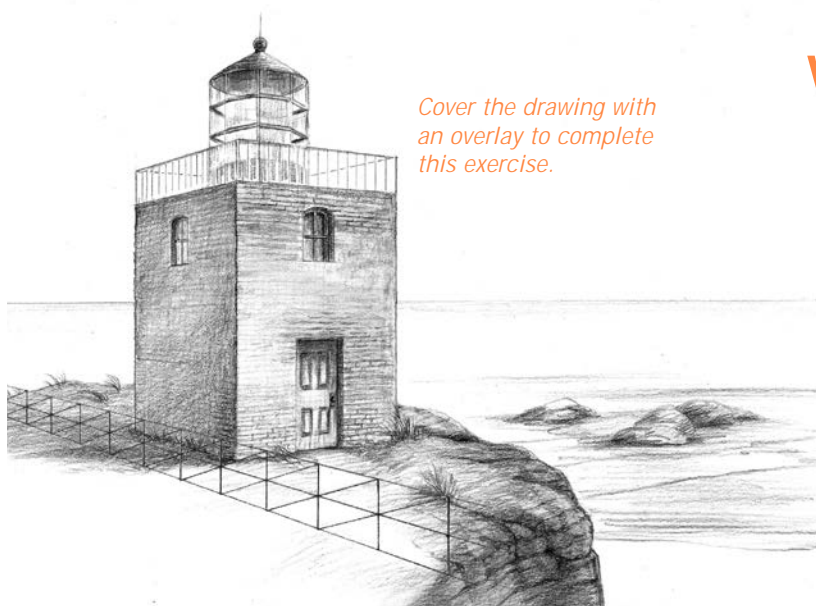
Notice the angles of the water and rock details that create depth.



9 Erase the window construction lines. Shade the right side of the lighthouse with 30 percent value and the left with 60 percent value, and then shade individual bricks in rows aligning with the corresponding vanishing points.

Shade the cliff darker than the distant rocks to create depth. Use directional shading, then create darker cross contour recesses. Shade the grass with directional shading and draw clumps of grass. Create a cast shadow at the left.

Cover the drawing with an overlay to complete this exercise.



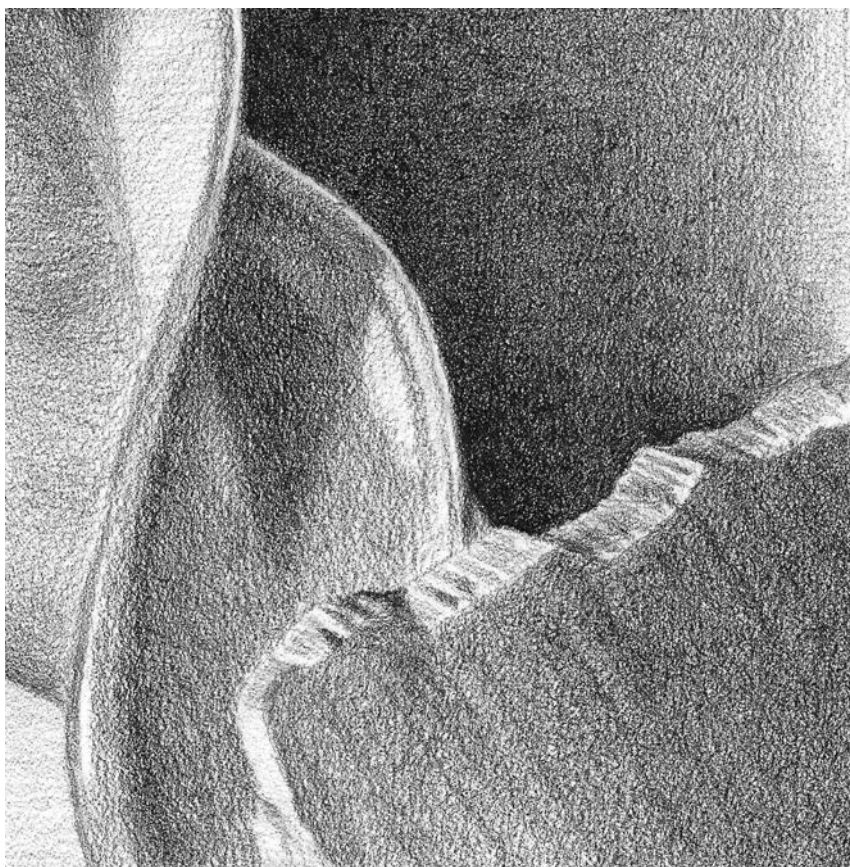
ADVANCED VARIATION

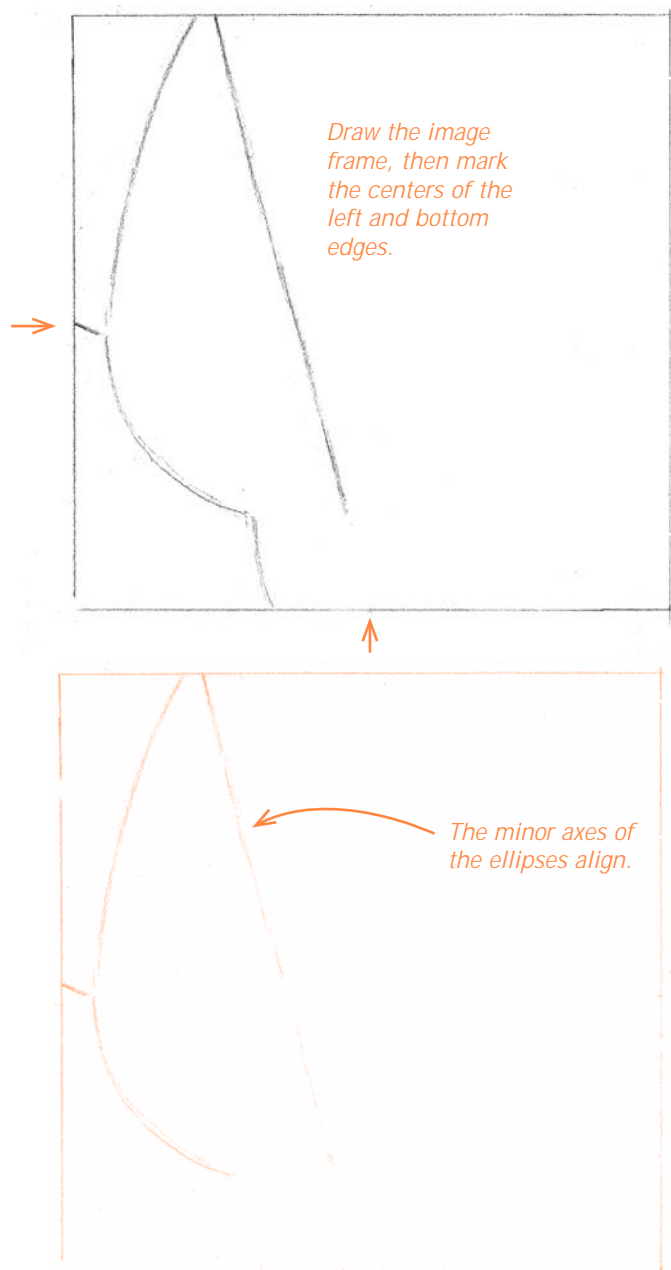
On an overlay, rule three equally spaced angled lines that converge toward VP1. Place a vertical line at the far right and then another to its left to create the desired distance between posts. Draw a diagonal line from the top of the far right post through the point where the second post and the center converging line intersect and on down to the ground line. Repeat this process moving one post to the left each time.

complex abstraction

Steps: 9 Dif culty: ■ ■ ■ ■ ■

Extreme close-ups, like this fragment of a shell, take a subject out of context and turn it into a strange terrain to explore. This composition contrasts curvilinear and rectilinear shapes that resemble land formations in some areas. Begin constructing the spiral with accurate, well-placed contours, then block in the midtone and shaded areas. The delicate gradations are created before the final dark values.



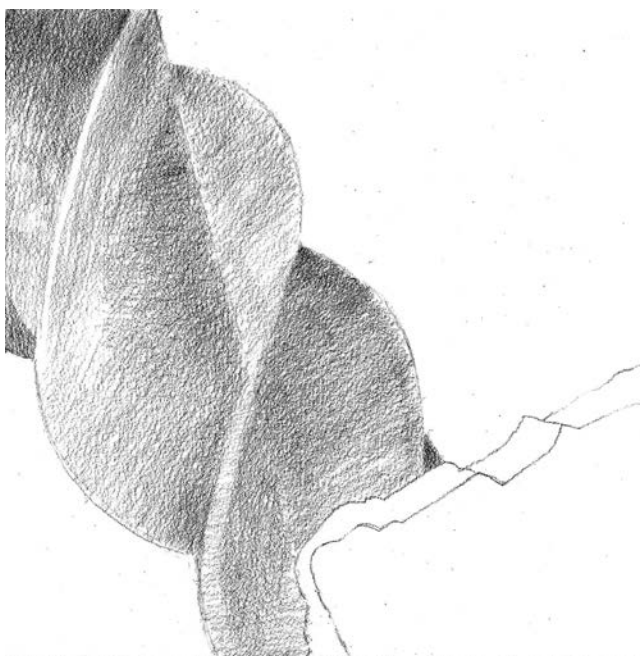


1 Construct a 6½-inch (16.5cm) square frame for the image. The two arrows mark the centers of these two sides. Begin the main contours at the left arrow with a short diagonal mark, followed by a curve and a straight line down to the lower frame edge. Continue the curve at the left arrow up to the top, then draw the long angled line directed downward to the center of the lower frame edge.

2 Lay in the broken edge of the foreground, then draw the remaining spiral curves.

Lay in the main value shapes of the spiral. Though the edges have definition, keep them soft without outlining. Note the directions of the gradations and shading.

3



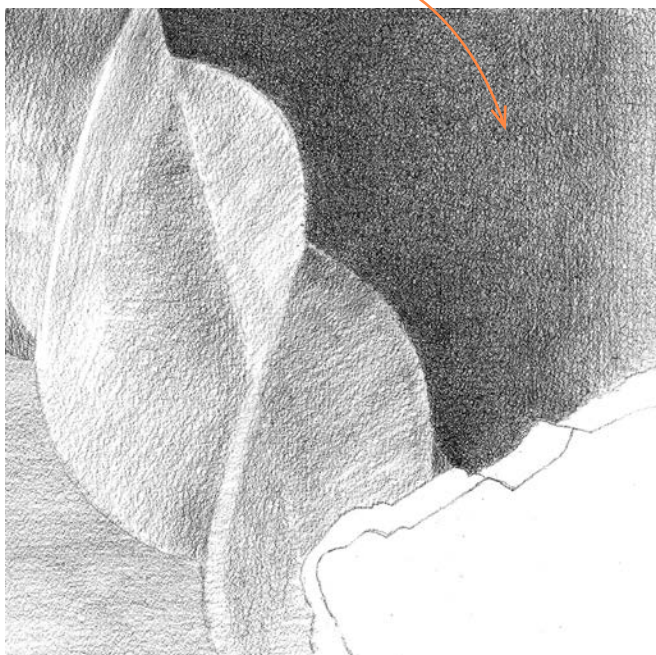
CONCEPT

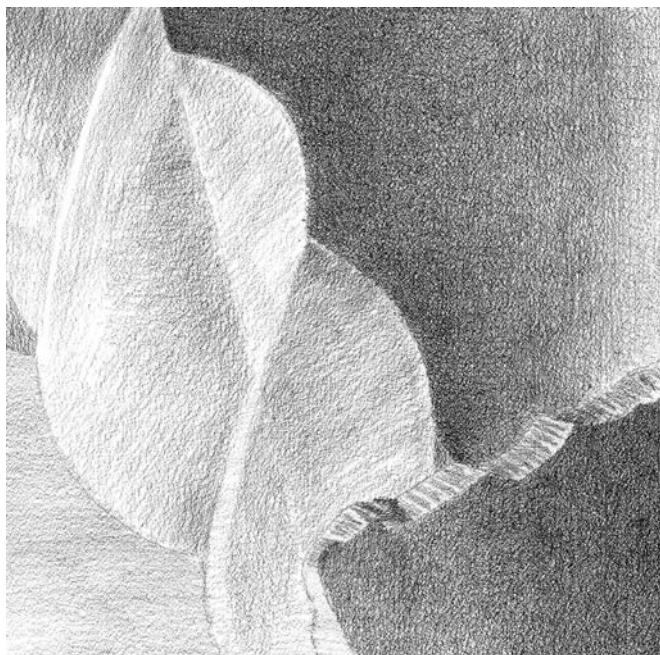
Value shapes are the areas of light and dark in an image. Seeing the subtle, soft value shapes in shadows and light areas will help to create effective gradations.

This gradation goes from 60 percent to 30 percent value and requires two layers of shading at this stage.

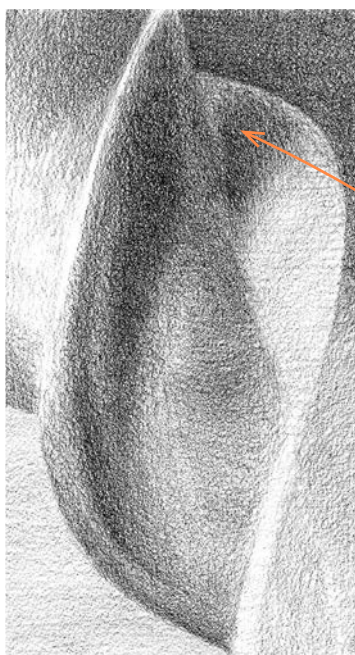
Shade the lower left corner shape with an HB pencil and the darker area to the right of the spiral with a 4B pencil.

4





- 5 Shade the foreground fragment edge with 10 percent value, then add the cross contour marks. Create a 40 percent to 60 percent value gradation on its facing side.

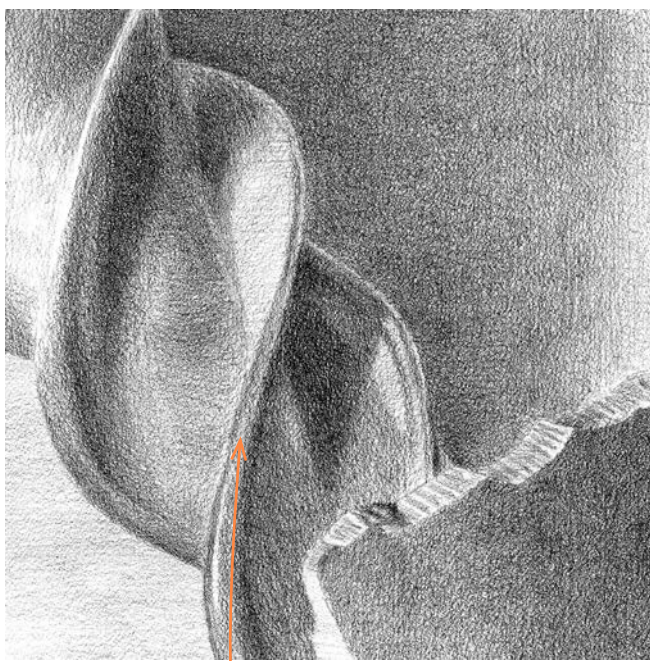


Maintain the light upper edge and the reflected light in the shadow.

- 6 Shade the middle turn of the spiral with midtone, then add the deeper shadow tones with small back-and-forth shading strokes.

Continue shading the lower turn of the spiral. Again, shade the midtone, then lay the deepest shadow over it.

7



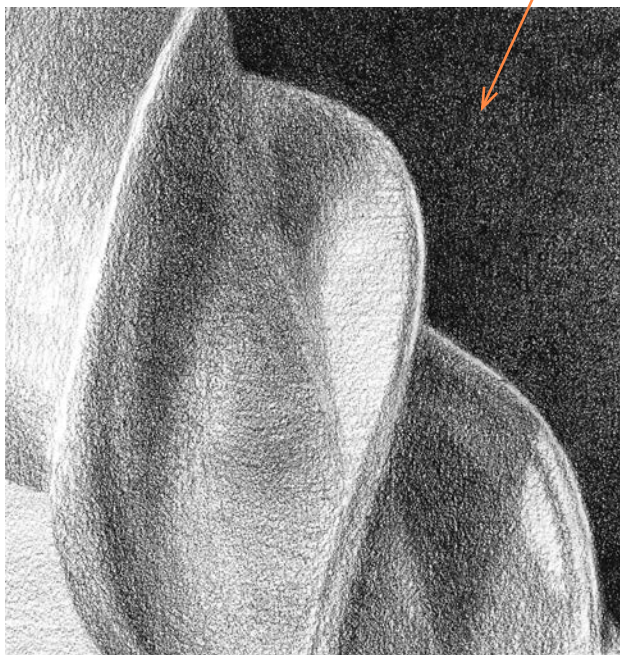
Maintain the reflected light.

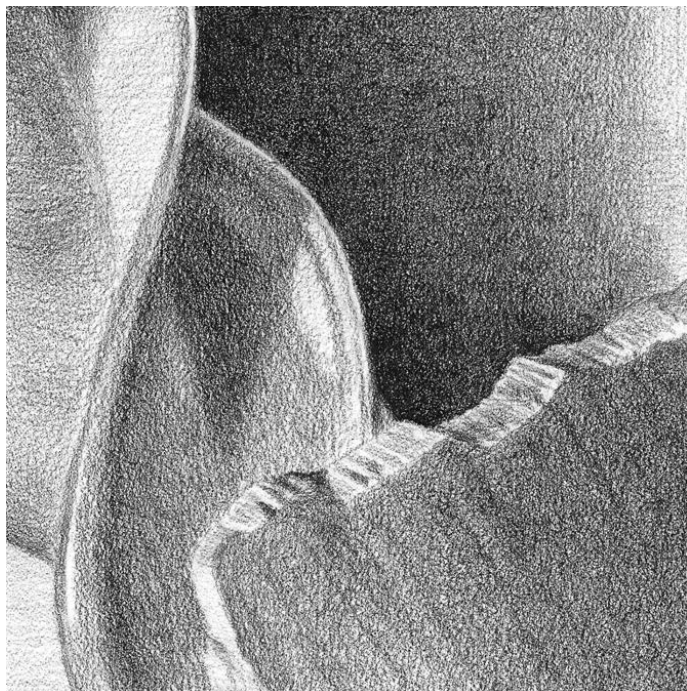
Sharpen the pencil often as you shade the darkest values.

Refine the spiral's surface gradations and edges. Lift off the delicate highlights and reflected light edges with a shaped kneaded eraser.

8

Deepen the gradation of the large shadow at the right to 100 percent at the left and 80 percent at the far right. Carefully define where it meets the top edge of the near fragment without a hard outline.

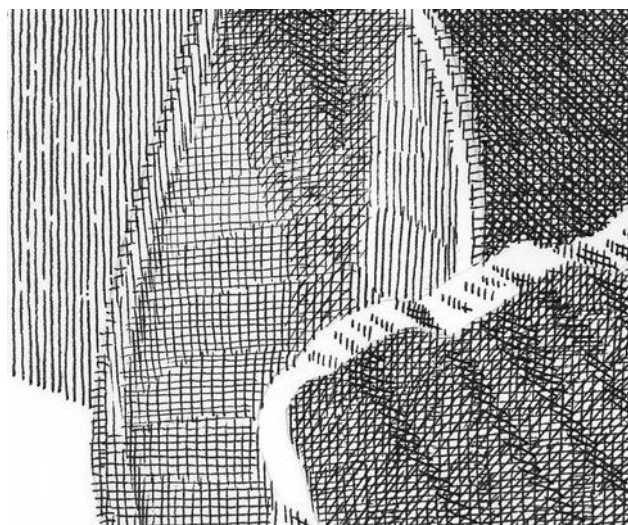




9 Darken the shadows of the nearer fragment. Add the diagonal streaks in a random pattern.

Lean back and squint to judge the effect of the values.

Take the overlay off to refer to the pencil version while creating the pen drawing.



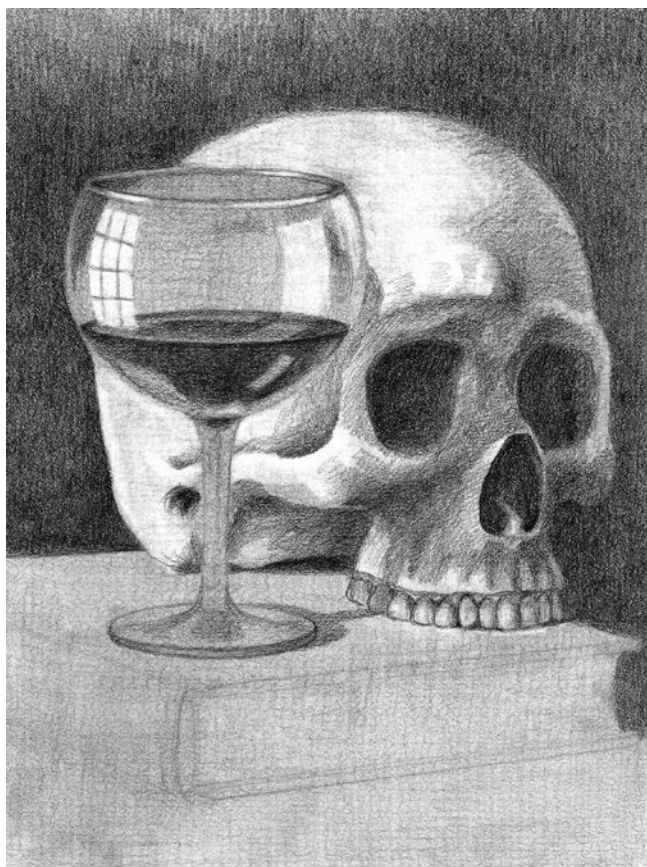
ADVANCED VARIATION

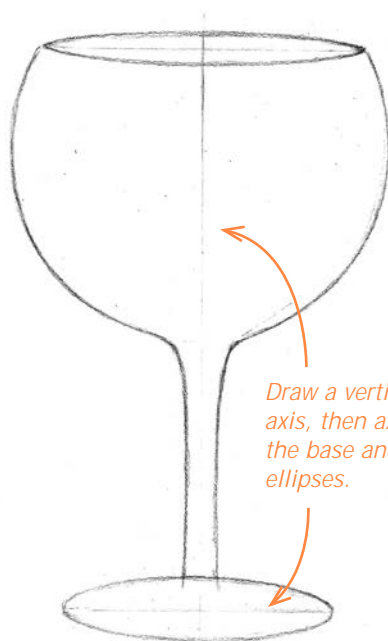
Create a pen version of a section of the composition with crosshatching. Begin by sketching the main contours on a translucent paper overlay with an HB pencil. Then, based on the drawing, build the value shapes on the overlay sheet slowly with vertical strokes for all areas 20 percent value and above, horizontal strokes for all areas 40 percent and above, 45 degrees right for areas 60 percent and above, and 45 degrees left for 80 to 100 percent value areas.

vanitas still life

Steps: 9 Dif culty: ■ ■ ■ ■ ■

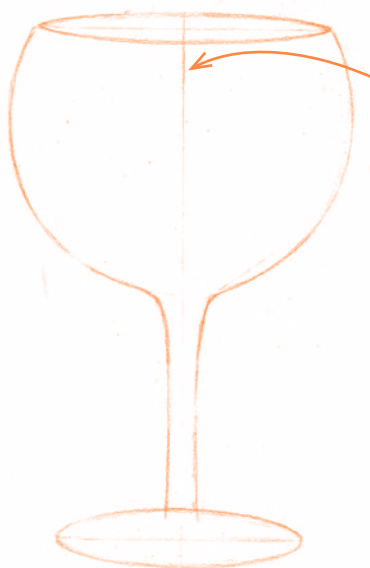
Symbolic objects arranged to tell a story date to ancient history. The wine glass, skull, and old book are central to the vanitas, or *vanity*, still life. Though a macabre and sober reminder of the transience of life, it also combines the skeletal anatomy of the human figure, the reflective effects of glass, and two-point perspective for closer inspection.





The center of the page
is to the left of A.

← A



B
↓

↑
B

- 1 Draw a rectangular frame $10\frac{1}{4}$ (26cm) inches tall by $7\frac{3}{4}$ (19.75cm) inches wide on a 9×12 inch (23×30.5 cm) drawing page. Construct a wineglass that is $2\frac{3}{4}$ inches (7cm) up from the bottom of the frame and $\frac{3}{4}$ inches (2cm) from the left side of the page, and is $5\frac{3}{4}$ inches (14.5cm) tall and $3\frac{5}{8}$ (9cm) wide.

- 2 Draw the broken line outside contours of the skull. Notice that the skull's vertical midpoint is tangent with the right side of the wineglass, making the skull about twice the width of the wineglass. Then draw the guidelines B that angle upward slightly to the right. Draw the dashed midline that follows the contour of the center of the skull to help determine placement of the features.

Draw the outside contours of the book, copying the angles from the illustration. Notice the thickness of the book's pages is nearly half the height of the entire book in this foreshortened view.

Refine all the contours to about 70 percent value.

3



CONCEPT

Tonal drawings begin with middle gray, which unites the lifted out highlights and heavily shaded areas and uses value rather than line to describe form.

Shade the entire image area with a 4B pencil in a vertical direction and then a second time in a horizontal direction creating a 50 percent value with a texture that appears woven.

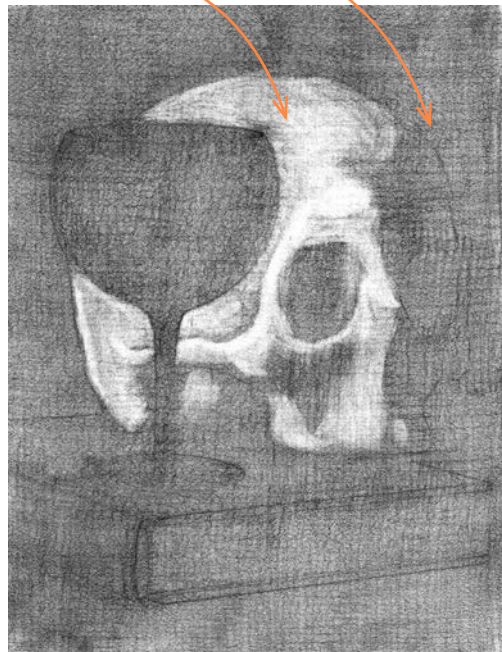
Gently blend the entire area with a folded paper towel, wiping in horizontal and vertical strokes to create an even 50 percent gray value all over.

Drag and touch a kneaded eraser on the page to lift off the skull's light side.

4

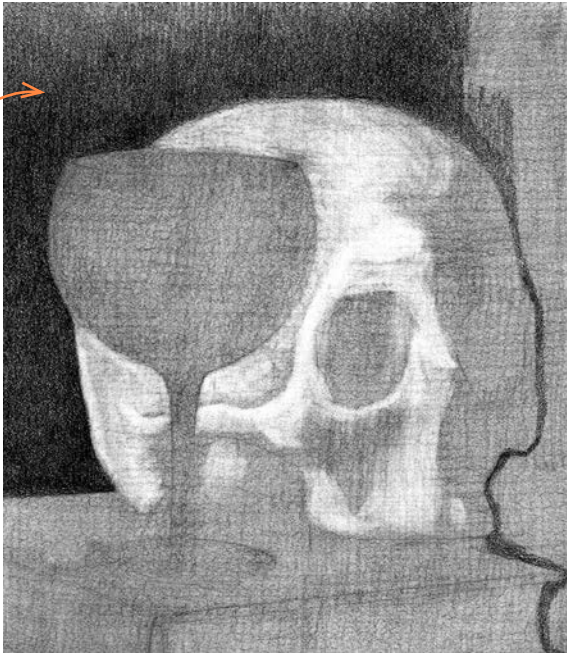
Drag the eraser to lift off a little and push the eraser onto the page to create lighter areas.

Use the contours as a guide while you draw with the kneaded eraser.

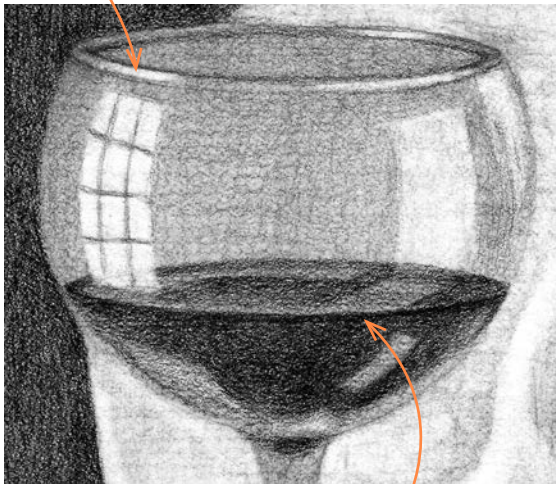




Shade with short overlapping back-and-forth strokes.



The light shapes are created by lifting off tone and then shading to refine the light shapes' edges.



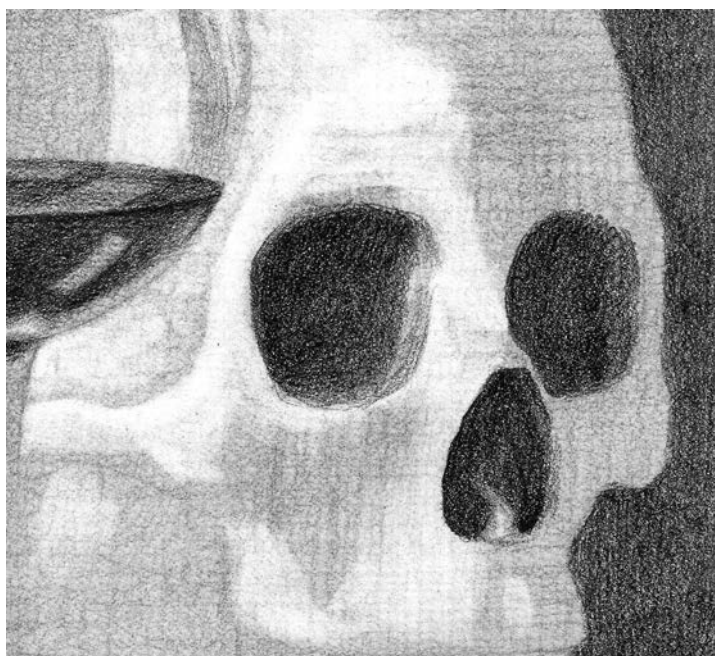
Check that the ellipse of the wine is level.

5 Shade the background lightly with a 6B pencil around the skull, then with vertical strokes over the main area.

6 Draw the darker lines of the rim, then lift off the highlights. Also lift off the curving rectangle highlights of the wineglass, then lightly redraw the muntins of the window in the left-side reflection. Draw the dark line of the ellipse and then the ellipse shading, followed by the lower area of the wine.

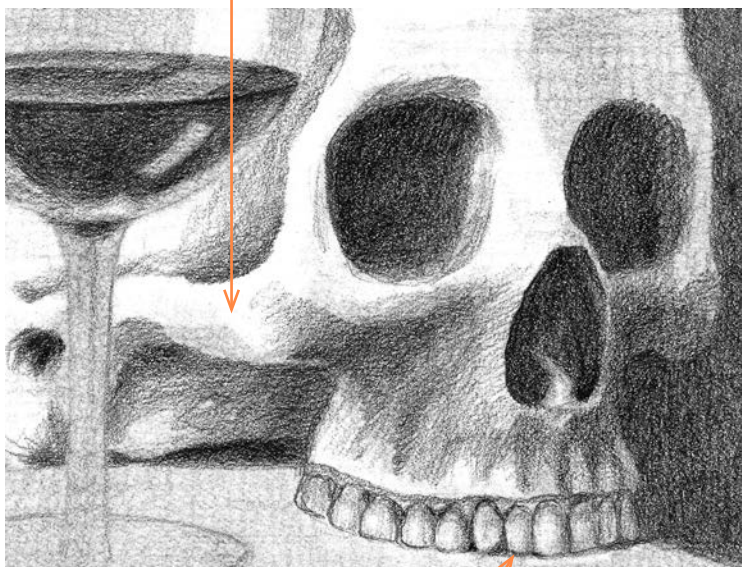
Shade the eye sockets and nasal cavity and notice where the edges are hard or soft. Use the kneaded eraser to refine the edges, if necessary.

7



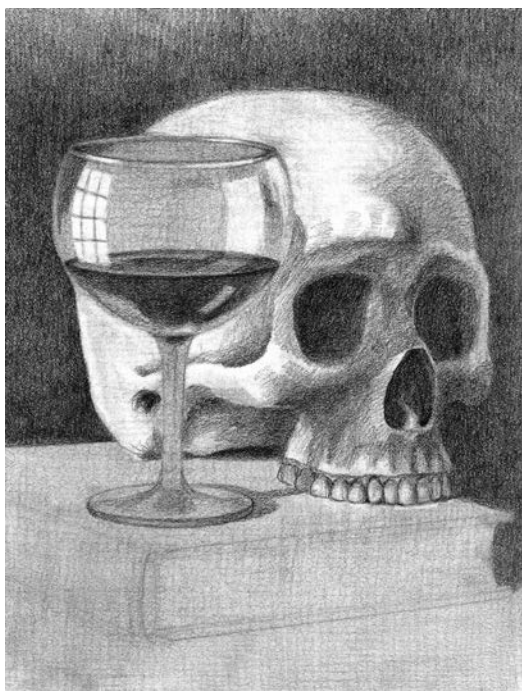
Shade the maxillary area above the teeth to have a light-dark-light value pattern to create the undulating surface. Sketch the teeth individually with shapes unique to molars, bicuspids, canine, etc., as shown. Shade the deep pierced area behind the zygomatic bone and the auditory hole to the left of the wineglass stem.

8

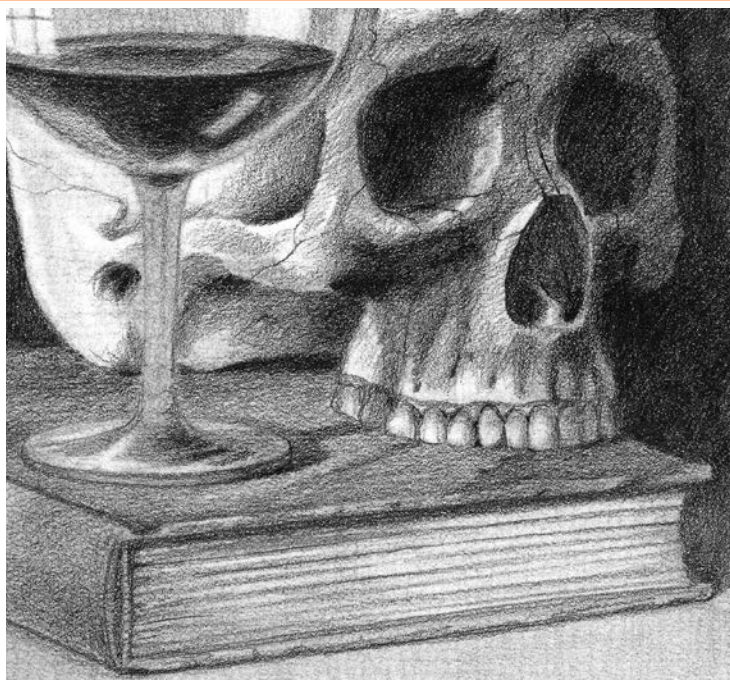


The zygomatic bone and arch.

After sketching the teeth, touch them softly with the kneaded eraser to create a porcelain quality.



- 9 Create the shadow of the wineglass beginning at the base, following up the molar, maxillary, orbital cavity, nasal bone, and brow. Increase the shading on the right frontal side of the head.



ADVANCED VARIATION

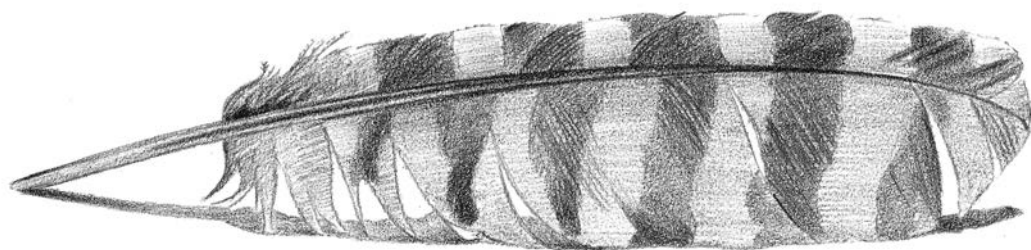
Shade the background to 90 percent and 100 percent value near the right zygomatic bone. Darken the wine and skull gradations. Add cracks in the bones that follow the form. Shade the entire book to 60 percent value, then even darker at the corner by the teeth to create a torn area. Darken the pages, then lift off rows of highlights and add thin shadows to emphasize the gathered sections of pages. Add small shadows under overhanging areas of the cover.

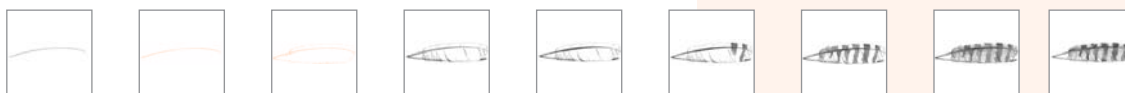
how to
draw a

feather

Steps: 9 Dif culty: ■ ■ ■ ■ ■

This hawk feather has an eye-catching shape, fascinating texture, beautiful irregular pattern, and a range of details. Its structure is branching, with the barbs growing from the shaft of the quill. From the barbs grow even smaller barbules, and from these, barbicels. Drawing is a way to enjoy nature's details through observation.





Lift up at the end of the final stroke to create a very thin tip.



- 1 Draw the curve of the feather with overlapping strokes. The quill begins at the left and curves to its highest point at the right of the shaft. Then it ends at the tip, higher than the start.



- 2 Draw the upper outer contour with a broken line that anticipates separations of the barbs. Then draw the lower contour that includes the shadow cast from the quill.

Draw the separations of the barbs. Take care to copy the widths between them and the range of spaces they make.

3

Be aware of the spaces of the separations and draw them to match the image.

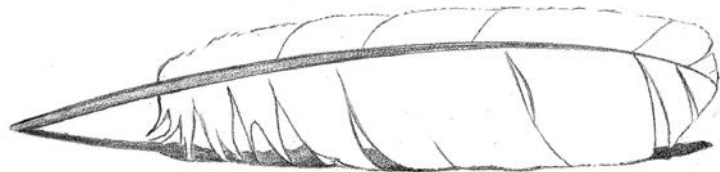


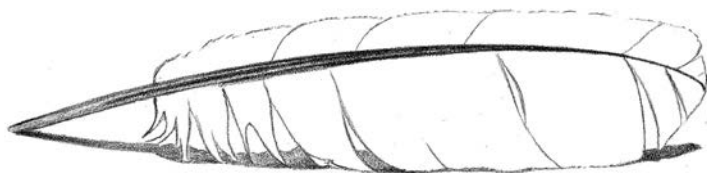
CONCEPT

Soften surface texture without smudging
by shading lightly over the area with an F or H pencil. Smudging can often eliminate detail and has a heavy look.

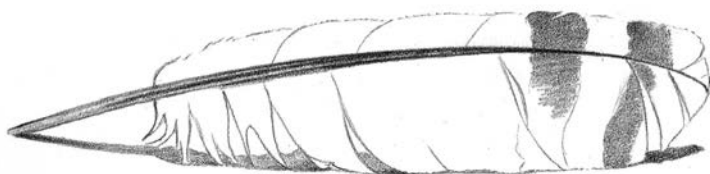
Begin the shading of the shaft to be darker at the sides and lighter in the middle. Shade the shadow shape between and beneath the barbs.

4





5 Intensify the illusion of the shaft by adding a thin cast shadow and darkening the center and sides. Darken the cast shadow near the quill tip and where the barbs touch the surface beneath it.

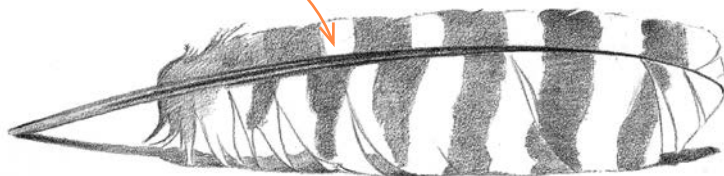


6 Lightly draw the shape of the first two bands and shade them in with a back-and-forth motion.

Draw the contours of the remaining bands and shade them in.

7

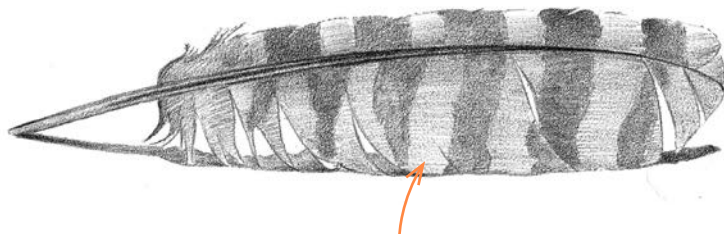
Some of the banding is staggered at the shaft.

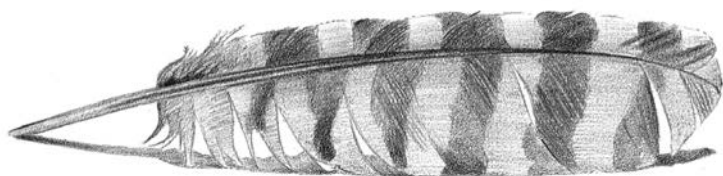


In a much lighter tone than the bands, shade over the entire barbs area, leaving the top area a bit lighter.

8

Shade with soft back-and-forth motions and very little pressure.





- 9 Darken the bands and add some marks that make some of the barbs stand out. Shade some of the barb area in the direction of the barbs to create the undulation of the surface.

ADVANCED VARIATION

Drag the flat-edged eraser in these directions to highlight the shaft and barbs.



Softly shading with a 2B pencil, blend and darken slightly the center of the feather in the direction of the shaft to intensify the lateral rounding of the feather. Stroke the kneaded eraser in the direction of the barbs between the shading of step 9 to further develop the undulating surface. Create highlights along the shaft.

how to
draw a

foreshortened face

Steps: 9 Dif culty: ■ ■ ■ ■ ■

To draw this unusual view of the face requires your mind to trust your eyes. The mind knows an individual's facial features are easiest to distinguish by viewing the face directly. In this oblique view, the cross contours are critical landmarks to understanding the features' positions and knowing that the midline, because this head is slightly turned, is not a straight line.



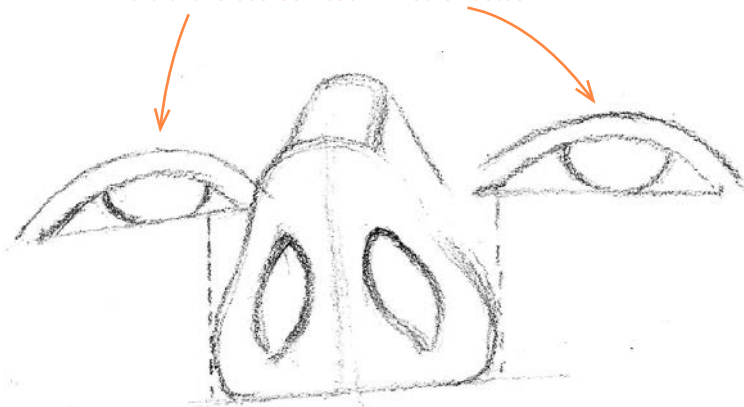


Draw this construction very lightly to easily erase it later.



The level line is a reference line only to make plain the angle of the line of the eyes.

The curves of the eyelids peak at the arrows where the raised corneas will be directed.



1 Draw a 4-inch (10cm) long construction line that angles upward to the right at about 4 degrees. Then lay in the two lines for the individual eyes. The eye on the right is $1\frac{1}{8}$ inch (3cm) wide. The one on the left is 1 inch (2.5cm) because the eye turns out of view at the outside.

2 Draw the main contours of the upper eyelids and the irises. Lightly sketch the vertical alignment lines and then position the contours of the nose in relation to them. Sketch the angled bridge of the nose lightly to be incorporated into the shading later.

Draw the curving contours of the lower lids and the cross contours of the sides of the nose.

3



CONCEPT

Create **depth** by changing the values with gradations and by shading a midtone, then adding dark areas, and then adding the darkest darks of the image's value range.

Erase the construction lines of the eyes. Draw the curving lines of the sides of the brow and then sketch the hatch marks of the eye-brows. Draw the top of the forehead to peak above the right nostril.

4





The thickness of the upper lids is highly visible from this angle.



Building value in layers allows you to place the eyebrows and then modify them.

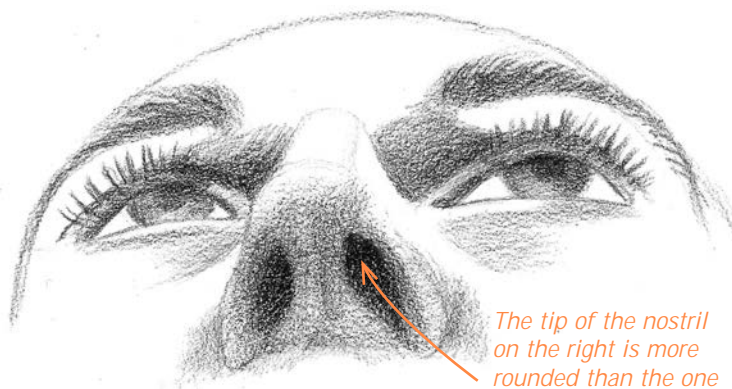


5 Create the shadows around the eyes, draw the irises, then draw the curving lines of the eyelashes. Add the thin shadow where the upper lids meet the eyeballs.

6 Darken the eyebrows with lines that angle outward from the sides of the face. Increase the value of the shadows of the upper eyelids and the eyelashes.

Shade the nostrils with very small strokes and then shade the underside of the nose. Lay in the subtle gradations of the underside of the nose.

7



The tip of the nostril on the right is more rounded than the one on the left.

Shade lightly over the entire face from the upper forehead down to the underside of the nose with an HB pencil.

8

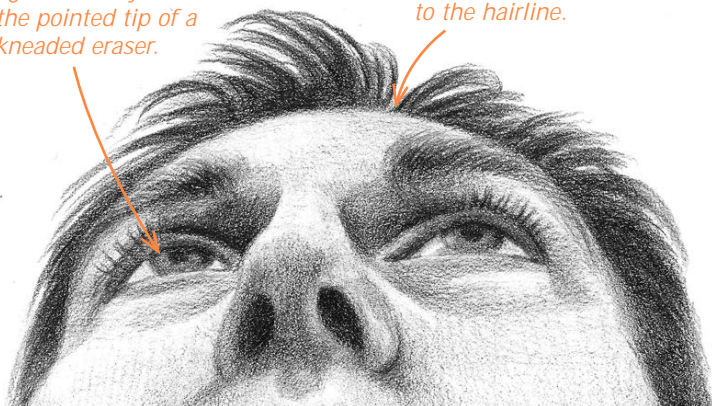


Shading lightly over an entire complex value area helps create unity.



Lift off the highlight of the eye with the pointed tip of a kneaded eraser.

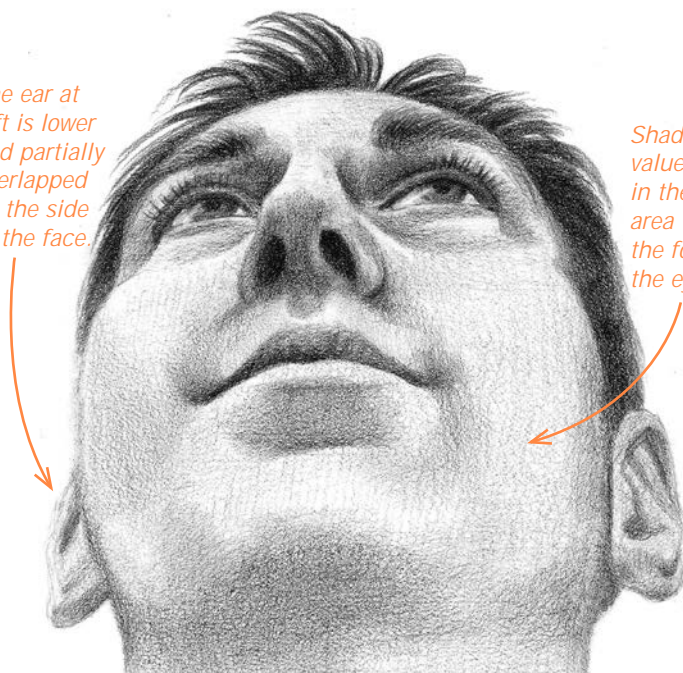
Because of the low point of view, the forehead curves back out of view to the hairline.



- 9 Intensify the darkest darks of the nostrils and eyes and lower eyebrows to 90 percent value with an 8B pencil. Continue to shade the hair with soft shading. Then gradually define some of the individual hairs and strands. Finish by darkening a few of the individual hairs and shade a little darker at the base of the hairs near the hairline.

The ear at left is lower and partially overlapped by the side of the face.

Shade the values lighter in the lower area to keep the focus on the eyes.



ADVANCED VARIATION

To place the features of the lower face, notice the following:

The length spanning the outside corners of the eyes is equal to that from the top of the head to the indentation below the lip.

The length from the forehead to the shadow of the chin is equal to the width at the eyes from temple to temple.

The ear at the right is just below the level of the corners of the mouth.

